MARIHE-5 MASTER THESIS

LATVIAN STUDENTS' PERCEPTIONS OF HIGHER EDUCATION ACCESS, QUALITY AND OUTCOMES IN LATVIA AND OTHER EU COUNTRIES.

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ABSTRACT

The purpose of this thesis was twofold. Initially I explored how Latvian high school students perceive higher education in Latvia and other EU countries, particularly HE Access, HE Quality and HE Outcomes. Afterwards, I examined to what extent student perceptions influence their intentions to study in other EU countries. It is important to note that when evaluating HE in other EU countries, students were asked to refer to 3 to 5 EU countries they would consider as their potential study destinations.

To compare the student perception on HE Access, HE Quality and HE Outcomes, the three concepts were operationalized into eight variables. HE Access was split into *information availability* and *financial assistance*, HE Quality in *learning outcomes, teaching methods, internationalizations* and *student life* while the concept on HE Outcomes was further divided into *labour market relevance* and *HE reputation*. To compare these eight variables for Latvia and other EU countries, paired samples T-tests were used. The results suggested that final year high school students in Latvia perceive HQ Quality and HE Outcomes in other EU countries as significantly better than in Latvia on all six variables. Yet the results on HE access were mixed. Students perceived *available information* as better in Latvia while the outcomes for *financial assistance* did not show significant differences between Latvia and other EU countries. To examine how the eight operationalized variables for Latvia and other EU influence student intention to study in other EU countries, I run the regression analysis. The results revealed that only 2 out of 16 independent variables had a significant, positive impact on the dependent variable. These were *information availability* in other EU countries and *teaching methods* in other EU countries.

STATUTORY DECLARATION

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1. that I have written my Master Thesis myself, have not used other sources than the ones stated and moreover have not used any illegal tools or unfair means,

2. that I have not publicized my Master Thesis in my domestic or any foreign country in any form to this date and/or have not used it as an exam paper,

3. that, in case my Master Thesis concerns my employer or any other external cooperation partner, I have fully informed them about title, form and content of the Master Thesis and have his/her permission to include the data and information in my written work.

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ACKNOWLEDGEMENTS

I would like to thank my thesis supervisor Lesley Andres for providing valuable advice and guidance. I enjoyed reading your comments and progressive writing advice. I appreciate your willingness to be my advisor despite the time difference.

I also must thank the school teachers and administrative staff for agreeing to conduct focus groups and surveys with their students in a very busy school period. This research could not have happened without your support.

I also need to thank my parents and their friends for helping me to contact schools and arranging logistics. Also, I am grateful for all the support and entertainment I received from my parents, siblings, and friends while writing the thesis.

Finally, I would like to express my appreciation to Attila Pausits and the rest of MARIHE team for accepting my application for MARIHE program more than two years ago and providing support and guidance throughout the program.

1. INTRODUCTION

1.1 RESEARCH PROBLEM

Over the last thirty years, the number of students pursuing higher education (HE) abroad has increased more than five times. While 0.8 million students opted for international education in 1975, the number reached 4.5 million by 2014 (OECD, 2014a). According to OECD forecast, there will be 8 million globally mobile students by 2025 (OECD, 2012). Increased student mobility offers many benefits to host countries among which are strengthened internationalisation of higher education (Qiang, 2003; European Parliament, 2015) , talent acquisition (LH Martin Institute, 2011; Group of eight, 2014), and economic returns (Altbach & Knight, 2007; ITA, 2016).

In most cases developed countries disproportionally benefit from these returns. According to OECD and UNESCO Institute for statistics, 73% of international students choose to go to one of the OECD countries. In fact, Australia, Canada, France, Germany, Japan, the United Kingdom and the United States host more than 50% of the total international students worldwide. Within OECD countries, EU21 countries attract the largest proportion of international students (35%). Yet more than 70% of these students come from other EU21 countries (OECD, 2015)

On contrary, less developed countries are exposed to risks associated with emigration, leading to loss of high potential human capital and economic downturn (Beine, Docquier, & Rapoport, 2001; Ha, Yi, & Zhang, 2016). Can these countries take action to make their HE systems more attractive to local students? If so, what policy solutions would be appropriate? Before answering these questions, it is important to understand what factors motivate local students to pursue their studies abroad.

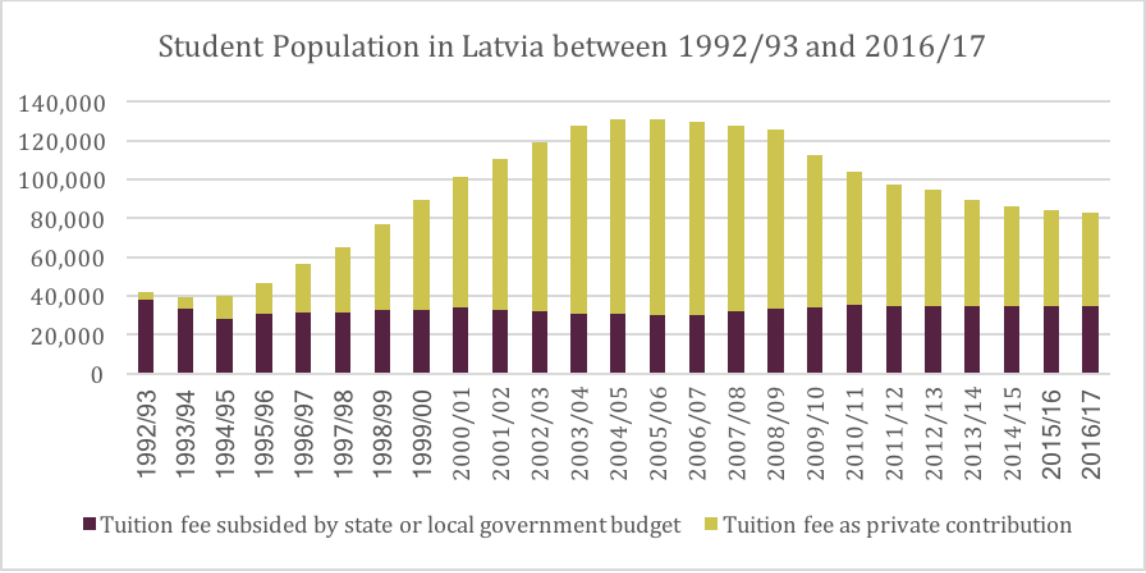
The focus of this study is Latvian higher education system in the context of the European Union(EU). Latvia, a relatively new northern European country celebrated its 100-year anniversary in 2018. It gained its independence from the Soviet Union in 1991 and joined the EU in 2004 (Dedze & Rubene, 2016). The country does not possess any significant natural resources (Auers, 2016). Thus, with a population below 2 million and negative net

migration since 1991 (CSB, 2017), it is essential for Latvia to invest in (Auers, 2016) and retain its human capital.

Joining the EU in 2004 granted Latvian citizens the rights to study and work in other EU countries under the same conditions as local citizens. Latvians were eligible to enrol in EU higher education institutions for local tuition fees and apply for jobs without work visas (EC, 2014). Multiple EU member states offered good quality tuition-free tertiary education to all EU citizens (MasterPortal, 2018). At the same time fees in Latvian HEIs varied considerably and financial assistance besides merit-based scholarships was limited.

Soon after joining the EU, the number of students in Latvian HEIs started dropping. In a bit more than a decade (2005/6-2016/17) the number of students decreased by more than 35% from 131 thousand to 82.9 (CSB, 2017). Between 2005 and 2016, on average, around 74% of all Latvian emigrants chose to go to other EU countries. People aged 20 to 29 represented the largest number of emigrants – on average constituting more than 30% of all emigrants between 2012-2016 (CSB, 2017; 2016; 2015; 2014; CSB, 2013). Young adults, represented by people aged 20 to 29, are more likely than other groups to emigrate with an aim to pursue higher education abroad.

Table 1: Student Population in Latvia between 1992/93 and 2016/17



Source: (CSB, 2017), Matrix - IZ0260

While the EU membership and the rights that came with it played an important role in the drop of Latvian tertiary students, it was not the only contributing factor. Several years after Latvia joined the EU, Europe as well as other parts of the world were hit by economic crisis. In 2010 unemployment in Latvia reached 20% while the EU average was 10% (Ministry of Welfare of the Republic of Latvia, 2010). As a result, more people emigrated to the EU and fewer could afford to pay for higher education in Latvia (OECD, 2016a). Additionally, since 1990 the population of Latvia has declined from 2,67 M to 1,95 M in 2017, a 27% decrease. This trend could be attributed both to negative net migration and negative natural increase in population although impact from net migration was higher (CSB, 2017).

According to the UN Human Development Index, Latvia is considered a developed country. In 2016 it ranked 44th world-wide. Nonetheless, multiple other EU countries such as Germany, Denmark, the Netherlands, Ireland were ranked within the top 10, and many other EU countries such as France, Belgium, Austria, Finland and Sweden were within top 25 (UNDP, 2016). By choosing to study in one of those countries, Latvian students can opt to study, work and live in more developed countries. These students can obtain well-recognised diplomas without obstacles related to visas and immigration laws, sometimes even paying lower tuition fees than at their home country or no fees at all (MasterPortal, 2018), while remaining at relatively close proximity to home. The long-term benefits are considerable while the costs are relatively low.

The purpose of this study was two-fold. Initially I investigated Latvian students' perceptions of HE in Latvia and other EU countries and looked for significant differences. Building on these insights, I explored how these perceptions influence students' intentions to pursue their tertiary education in other EU countries within one to two years after completing high-school. Given that Latvian students can enter HE systems in other EU countries with relative ease, it was important to understand what factors motivate students to pursue their education in other EU countries. Insights obtained could be reviewed in the future when developing appropriate policy measures to mitigate emigration arising from large number of students pursuing their education in other EU countries.

The key problem recognized in this study was a significant drop in student numbers at Latvian HEIs. As previously mentioned, this phenomenon was attributed to multiple factors including aftermath of economic crisis and negative natural increase in population. While recognizing the importance of the aforementioned factors, I focused on the third one – HE rights within the EU. Joining the EU in 2004 granted Latvian citizens the rights to pursue HE in other EU countries under the same conditions as local citizens. When entry barriers are lowered, it is important to understand student perceptions and intentions to move to other EU countries. These insights can help to understand how student motivations and perceptions contributed to considerable drop in student numbers at Latvian HEIs.

1.2 RESEARCH GAP

This research contributed to the existing literature by investigating a well-known issue in a new research context. While the research on student mobility has long been established (Mazzarol & Soutar, 2002; Altbach, 2004; McCarthy, Sen, & Garrity, 2012; Ahmad & Hussain, 2017b; Lee S. W., 2017), this paper specifically focused on student mobility within the EU region. It is of particular interest as the entry barriers to HE are considerably lowered for the EU citizens.

Additionally, a push-pull theory is commonly used to understand what factors attract students or student sub-groups to a particular destination, commonly developed countries with many highly ranked HEIs such as the US (Altbach, 2004; McCarthy, Sen, & Garrity, 2012), Canada (Chen L. H., 2007), Hong Kong (Li & Bray, 2007) or emerging hubs such as UAE (Ahmad & Hussain, 2017a). Moreover, an increasing number of studies focus on push-pull factors relevant for Asian student groups – the largest pool of international students (Chen L. H., 2007; Chen J. M., 2017; Lee S. W., 2017). Studies with more commercial orientation, often seek to understand the general landscape of higher education market by explaining national strategies and policies of other countries and evaluating these approaches against their own (Becker & Kolster, 2012). This research, however, used the push-pull factor theory to explore how student perceptions differ between home and host countries, and what aspects influence student motivation to pursue their studies abroad, namely other EU countries in the context of this research.

Building on already existing literature and insights gained in focus groups, I developed a new research instrument to understand push-pull factors in Latvian context. Sequential exploratory strategy used in this research is particularly well-suited for developing new research instruments (Creswell, 2009). Moreover, based on the insights gained, several customized higher education policies were offered to improve attractiveness of Latvian HE system. These recommendations might be relevant for researchers interested in student mobility and perceptions within the EU area.

Moreover, Latvia has experienced an expansion in research focused on attracting international students and the economic impact these students have on the country's economy (KPMG, 2011), (European Migration Network, 2012), (Auers, 2016). This might be partially attributed to noticeable increase in the number of international students in Latvia. While in 2005/2006 there were 1,416 full time international students, the number reached 8,137 in 2016/2017. Thus, within 11 years the percentage of international students grew from 1% to 10% (Ministry of Education and Science, 2017), well above the OECD average of 6% (last reported in 2015) (OECD, 2017). Yet, limited attention has been given to understanding how many prospective Latvian students leave the country to study abroad and why, and whether they intend to come back after their studies. The risk of not knowing these answers may result in further loss of high potential human capital and negatively affect country's economy.

1.3 THEORETICAL FRAMEWORK

The theoretical framework of this research is based on push-pull factor analysis. The push-pull model was originally employed by Lee (1966) to explain the factors influencing human migration. Over time its application was extended to investigate international student flows to higher education study destinations abroad. One of the earliest studies was performed by McMahon (1992) who looked at international student flow from 18 developing counties to the US between 1960s and 1970s (Ahmad & Hussain, 2017b). Nowadays push-pull factor theory is widely used to analyse student motivations when choosing their study destination abroad (Ahmad & Hussain, 2017b; Altbach, 2004; Becker & Kolster, 2012; Chen L. H., 2007; Chen J. M., 2017; Lee S. W., 2017; Li & Bray,

2007; Mazzarol & Soutar, 2002; McCarthy, Sen, & Garrity, 2012).So far most research on student mobility has focused on the movement of students from non-English-speaking countries to English speaking countries (Ahmad & Hussain, 2017a) and from developing countries to OECD countries (Ahmad & Hussain, 2017b).

"Push" factors are understood as the domestic factors that motivate students to leave their home countries such as a poor economic situation, political turbulence, lack of academic freedom, and/or limited access to desired programs. "Pull" factors are reasons which attract students to specific countries abroad such as the reputation of the higher education institutions, career opportunities, favourable immigration policies, culture, and lifestyle (Altbach, 2004; Becker & Kolster, 2012). Selected push-pull factors vary across literature, depending on the research interests of the authors, chosen methodology and related theories. Some research focuses on factors influencing international student choice without specifically using push and pull factor terminology (ITA, 2016; OECD, 2015; QS, 2014; OECD, 2013). This section provides an overview of "push & pull" factors identified in the reviewed literature. The tables below indicate selected pull and push factors (Table 2a, 2b) and how frequently they appeared in the relevant literature (Table 3a, 3b). Each factor can be further narrowed in multiple dimensions. Dimensions of push-pull factors are discussed in the methodology section.

Table 2-a: A list of selected Pull factors

Nr.	Pull Factor	Nr.	Pull Factor
1	Academic reputation	11	Governmental (host countries) incentives and collaboration schemes
2	Available information	12	Historical/Political/ Socio-cultural links between countries
3	Available specialisations	13	Internationalization of the program
4	Campus facilities	14	Language considerations
5	Career opportunities	15	Personal contacts living in the host country
6	Cultural and social capital of the city	16	Prior recommendations from friends, family, professors
7	Degree duration	17	Reputation for open-minded and tolerant society
8	Ease of admissions process	18	Safety considerations
9	Financial considerations	19	Visa and immigration process
10	Geographical considerations		

Source: (Ahmad & Hussain, 2017b; Altbach, 2004; Becker & Kolster, 2012; Chen J. M., 2017; Li & Bray, 2007; Mazzarol & Soutar, 2002; McCarthy, Sen, & Garrity, 2012; OECD, 2013; OECD, 2015).

Table 2-b: Overview of the pull factors appearing in the reviewed literature

Article/ Pull Factors	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Ahmad et al, 2017	x	x	x		x		x	x	x	x	x		x	x	x	x		x	x
Altbach, 2004	x		x		x	x													x
Becker et al, 2012	x	x	x	x	x	x		x	x	x		x	x		x			x	x
Chen, 2007	x				x	x		x	x	x		x		x	x	x	x	x	x
Lee, 2017	x				x				x							x			
Li et al, 2007	x		x	x	x	x		x	x	x		x	x	x	x				
Mazzarol et al, 2002	x	x	x		x	x		x	x	x			x		x	x	x	x	x
McCarthy et al, 2012																			
OECD, 2013, 2015	x								x					x					x

Source: (Ahmad & Hussain, 2017b; Altbach, 2004; Becker & Kolster, 2012; Chen J. M., 2017; Li & Bray, 2007; Mazzarol & Soutar, 2002; McCarthy, Sen, & Garrity, 2012; OECD, 2013; OECD, 2015).

As can be seen from Table 1-a and Table 1-b, an extensive list of pull factors can be found in the relevant literature. The pull factors with the highest frequency were "academic reputation" (8 out of 9 sources identified), "career opportunities", "financial considerations" (7/9), and "visa and immigration process" (6/9). The least frequently mentioned factors were "degree duration" (1/9) and "government incentives and collaboration schemes" (1/9). However, these factors were considered to be sufficiently important to be included in the research instrument.

Table 3-a: A list of selected Push factors

Nr.	***Push Factor***	***Nr.***	***Push Factor***
1	Access to desired programs	5	Lifestyle considerations
2	Economic situation	6	Personal development
3	Financial considerations	7	Political situation
4	Government incentives	8	Safety considerations

Source: (Ahmad & Hussain, 2017b; Altbach, 2004; Becker & Kolster, 2012; Chen J. M., 2017; Li & Bray, 2007; Mazzarol & Soutar, 2002; McCarthy, Sen, & Garrity, 2012; OECD, 2013; OECD, 2015).

Table 3-b: Overview of the push factors appearing in the relevant literature

Article/Push Factors	1	2	3	4	5	6	7	8
Ahmad et al, 2017								
Altbach, 2004	x				x		x	x
Becker et al, 2012	x	x	x	x	x		x	
Chen, 2007	x	x					x	
Lee, 2017	x	x						
Li et al, 2007	x					x		
Mazzarol et al, 2002	x							
McCarthy et al, 2012	x	x				x		
OECD, 2013, 2015								

Source: (Ahmad & Hussain, 2017b; Altbach, 2004; Becker & Kolster, 2012; Chen J. M., 2017; Li & Bray, 2007; Mazzarol & Soutar, 2002; McCarthy, Sen, & Garrity, 2012; OECD, 2013; OECD, 2015).

As can be seen from Table 2-a and Table 2-b, the number of push factors mentioned in the literature was considerably lower than the number of pull factors. The most frequent push factors were "access to desired programs" (7/9), "economic situation" (4/9) and "political situation" (3/9).

Push-pull factor theory has several strengths as well as weaknesses. In terms of strengths, this theory has found its application in multiple disciplines. Originally used by Lee (1966) to explain human migration flows, it has been extensively employed to analyse student mobility and underlying motivations (Ahmad & Hussain, 2017b; Chen J. M., 2017; Chen L.-H. , 2007; Mazzarol & Soutar, 2002), and preferences of tourists when selecting their holiday destinations (Aquino, Schänzel, & Hyde, 2017; Whyte, 2017; Pesonen, Komppula, Kronenberg, & Peters, 2011) among others. Furthermore, although dynamics of international student mobility have become more diverse and complex over time, the main push and pull factors have remained the same (De Wit, 2018).

On a downside, even though the push-pull model has been used as a theoretical framework in various studies and has proven to be an effective model for examining international students flows, it pays limited attention to micro level and the personal characteristics of students (Lee C.-F. , 2014; Li & Bray, 2007; Wilkins, Balakrishnan, & Huisman, 2012). The relative importance of factors varies across individuals (Hemsley-Brown, 2002) as

well as national and ethnic groups. The factors are also influenced by socioeconomic status. Consequently, all these aspects create a unique set of influences and considerations that affect student choice of study destination (Ahmad & Hussain, 2017b). Therefore, it is important to control for demographic variables when performing push-pull factor analysis.

1.4 RESEARCH QUESTION & HYPOTHESIS

The goal of this research was twofold. First, it aimed to understand Latvian student perception of HE access, quality and outcomes in Latvia and other EU countries, and whether they are significantly different. HE access, quality and outcomes concepts were identified during the focus groups. Secondly, it explored to what extent student perceptions affect their intentions to study in other EU countries within one to two years after completing high-school. It is important to note that there are significant differences in economic and social development across EU countries. Thus, when evaluating HE in other EU countries, students were inquired to list 3 to 5 EU countries which they would consider as their potential study destinations. The target audience of the thesis is higher education researchers interested in student mobility within the EU and policy-makers interested in developing HE policies that would motivate students to stay in their home countries. Thus, the following two research questions were proposed:

- Q1: To what extent do Latvian final year high school students **perceive HE access, quality and outcomes in Latvia** as significantly different when compared to **other EU countries?**
- Q2: To what extent do **perceptions** of **HE access, quality and outcomes in Latvia and other EU** countries **influence** students' **intentions** to pursue their **studies in other EU countries**?

Higher education access, quality and outcomes are all relevant when selecting tertiary education. This is also reflected in push and pull factors. For example, HE access is connected to "access to desired programs", "available information", "financial considerations", "visa and immigration policies". Also, HE quality is connected to "academic reputation", "internationalization", and indirectly to "campus facilities," and

"lifestyle considerations". Moreover, HE outcomes are linked to "academic reputation", "career opportunities", "economic situation" and "political situation". Nonetheless, HE access, quality and outcomes are concepts that still need to be further operationalized.

As this was an exploratory research, these three concepts were only identified and operationalized after the first stage of the research when I conducted the focus groups. Throughout the focus groups, eight variables emerged – two for HE Access, four for HE Quality and two for HE Outcomes. The three concepts were operationalized in the following way. HE Access was measured as *information availability* and *financial assistance*. HE Quality was categorized as *teaching methods, learning outcomes, internationalization, student life*. Also, HE Outcomes were operationalized as *labour market relevance* and *higher education prestige*. More information is available in Chapter 3.1 Research methods. This operationalization was necessary to formulate the hypothesis and develop a conceptual model. Based on operationalized variables, I proposed the following hypotheses:

Hypothesis I related to perception of HE Access:

- H1-1: Latvian final year high school students **perceive HE Access – *information availability*** in Latvia as significantly different when compared to other EU countries.
- H1-2: Latvian final year high school students **perceive HE Access – *financial assistance*** in Latvia as significantly different when compared to other EU countries.

Hypothesis I related to perception of HE Quality:

- H1-3: Latvian final year high school students **perceive HE Quality – *teaching methods*** in Latvia as significantly different when compared to other EU countries.
- H1-4: Latvian final year high school students **perceive HE Quality – *learning outcomes*** in Latvia as significantly different when compared to other EU countries.

- H1-5: Latvian final year high school students **perceive HE Quality – *internationalization*** in Latvia as significantly different when compared to other EU countries.
- H1-6: Latvian final year high school students **perceive HE Quality – *student life*** in Latvia as significantly different when compared to other EU countries.

Hypothesis I related to perception of HE Outcomes:

- H1-7: Latvian final year high school students **perceive HE Outcomes – *labour market relevance*** in Latvia as significantly different when compared to other EU countries.
- H1-8: Latvian final year high school students **perceive HE Outcomes – *HE prestige*** in Latvia as significantly different when compared to other EU countries.

Hypothesis II related to student intentions to pursue their HE in other EU countries:

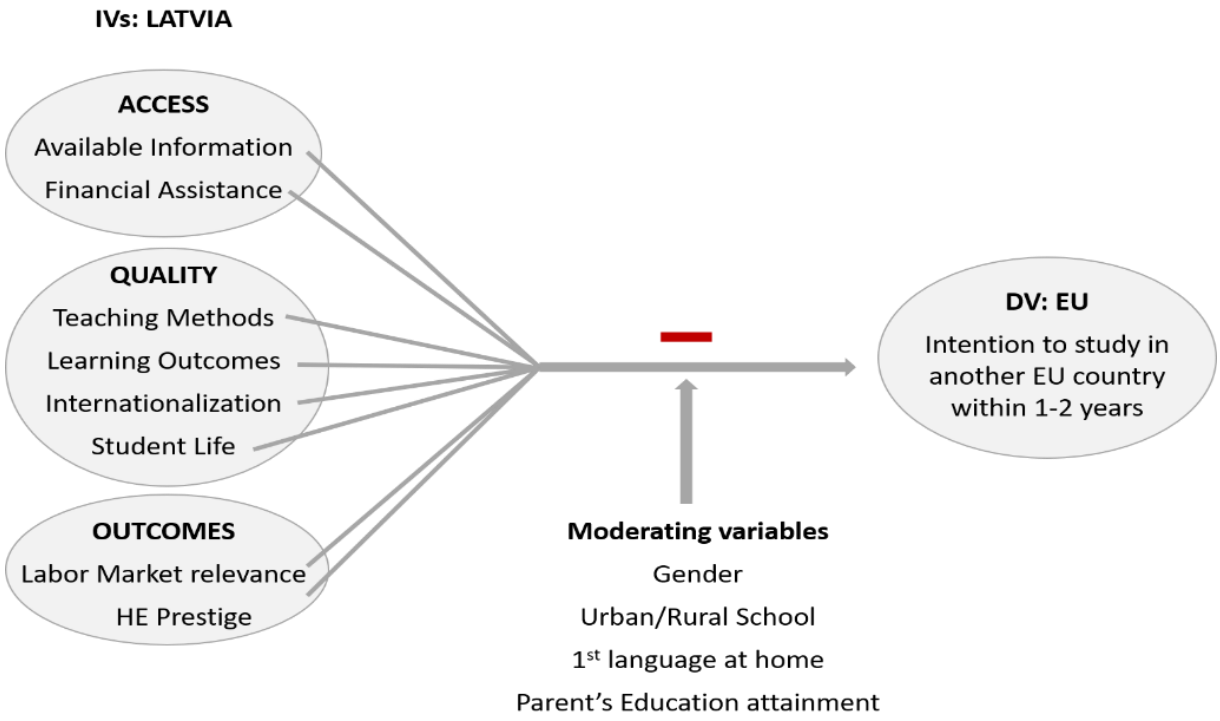
- H2-1: **Positive perception of HE** Access, Quality and Outcomes **in Latvia** has a **negative influence** on students' **intentions** to pursue their studies in other EU countries.
- H2-2: **Positive perception of HE** Access, Quality and Outcomes **in other EU** countries has **a positive influence** on students' **intentions** to pursue their studies in other EU countries.

In total, ten hypotheses were formulated. The first eight hypotheses were related to research question one while the remaining two hypotheses were linked to research question two. The terms HE Access, HE Quality and HE Outcomes used in the hypothesis referred to three overarching concepts. These concepts were further split into eight operationalized variables: *information availability, financial assistance, teaching methods, learning outcomes, internationalization, student life, labour market relevance and higher education prestige.*

1.5 CONCEPTUAL MODEL

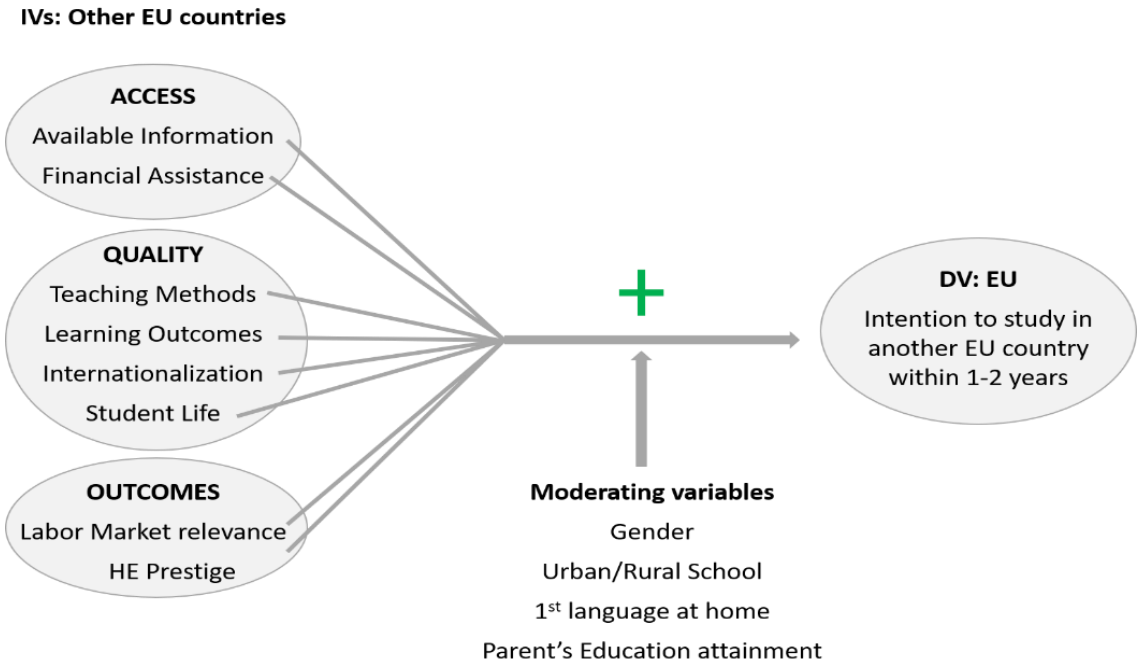
Concepts are mental images, labels, or symbols used to represent the central ideas in the research. Concepts are often vague and abstract, and need to be further operationalized to obtain meaningful results (Andres, Designing & Doing Survey Research, 2012). Two conceptual models were developed for the second hypothesis – H2-1 and H2-2. These models indicate the relationships between 16 independent variables and the dependent variable. Independent variables are operationalized variables representing the three core concepts of this research – HE Access, Quality and Outcomes.

Figure 1: Conceptual model I for Hypothesis II-I.



Aligned with H2-1 hypothesis, the first conceptual model shows that positive perceptions of HE access, quality and outcomes in Latvia are likely to have a negative influence on students' **intentions** to pursue their studies in other EU countries. Similarly, conceptual model for H2-2 hypothesis suggests that positive perception of HE access, quality and outcomes in other EU countries is likely to positively influence the dependent variable.

Figure 2: Conceptual model for Hypothesis II-II.



These hypotheses might be affected by moderating variables such as gender, urban or rural location of the school, 1st language at home or parent's education attainment. Thus, both conceptual models included moderating variables. Moderating variables are demographic or contextual in nature (e.g. gender, geographic location) and indicate how the relationship between the independent and dependent variables may differ as the values of moderating variable change (Andres, Designing & Doing Survey Research, 2012).

2. LITERATURE REVIEW

2.1 HIGHER EDUCATION ACCESS

Besides push-pull factor theory, a few prominent theories have tried to explain the factors that influence students' access to higher education. This section elaborates on two of them – Bourdieu's Theory of Practice (Bourdieu P. , 1977) and Härnqvist's model of educational choice (Härnqvist, 1978). Pierre Bourdieu, French sociologist, philosopher and anthropologist, has proposed a theory that has been regarded as one of the most influential theories in social sciences. He suggests that human actions or practices are influenced by their habitus, field and capital (Swartz, 1997). Bourdieu (1977) defines habitus as a product of history as it "[...]produce practices which tend to reproduce" (p. 78). Habitus can be described as a system of embodied dispositions and tendencies that affect the ways in which individuals tend to perceive the world around them and respond to it. He envisions fields as structured spaces organized around certain types of capital, consisting of dominant and subordinate positions. Bourdieu applied his theory to various fields such as education, law, the intellectual field and religion (Bourdieu & Passeron, 1990; Power, 1999). Furthermore, he suggests that actors tend to manifest their actions in a field by competing for power and influence through the use of their symbolic capital. Symbolic capital includes social (e.g. networks and connections) and cultural capital (e.g. knowledge and insights acquired) (Bourdieu P. , 1986). Bourdieu introduced symbolic capital to demonstrate that economic capital is not the only capital actors possess to compete in the field, to inflict their vision upon others or reproduce unequal power relations (Maggio, 2017).

Moreover, Bourdieu dedicated some of his time to specifically analyse the field of education. In his work he suggests that educational institutions are part of a larger system of symbolic institutions that reproduce existing power relationships. The culture transmitted and rewarded by the educational system is the one possessed by the dominant class. For example, schools reward certain linguistic competences, education curricula and authority patterns. Children coming from families with higher social backgrounds acquire this knowledge at home and enter the educational system better prepared. Consequently,

these students, being familiar with the dominant culture, have an enhanced ability to receive and decode their study material (Andres, 1992); (Bourdieu & Passeron, 1979). Schools, however, do not transmit the dominant culture in a transparent manner, but rather reward those who are already familiar with it. While other students try to catch up, students from the dominant culture are often able to excel. Step-by-step cultural capital gets converted into academic capital and, eventually, academic capital leads to acquisition of justified economic capital in the labour market. Bourdieu notes that differentiated academic achievement is often considered to be an outcome of differentiated academic ability. Unfortunately, the impact of cultural capital transmitted by families is frequently unrecognized. Thus, educational system itself contributes to the reproduction of the social system by rewarding hereditary transmission of cultural capital (Andres, 1992; Bourdieu P. , 1986).

Härnqvist developed a model to explore how participation in post-compulsory education is affected by various factors. His model proposes that entry into this level of education depends upon individual and institutional factors. The process leading up to this choice is influenced by dynamic interaction between the people and the surrounding environment; thus, it is difficult to isolate cause and effect. He splits individual determinants into two dimensions: *student characteristics* and *personal environment*. Under *student characteristics* he lists variables including sex, intellectual abilities, educational achievement, interests and aspirations while under *personal environment* he includs family background, peer group and school environment.

Next, he categorizes institutional determinants into those related to Educational System and others linked to Society Outside the Educational System. Educational System is further divided into three categories - "conditions antecedent to choice", "conditions anticipated into choice situation", and "predicted structural changes in education". Conditions antecedent to choice refer to those "factors which operate in the school to which the student belongs when he [sic] makes his [sic] plans for the next stage" (p.55) such as *curriculum emphasis, terminal vs transfer programs, differentiation system* and *guidance organization* (Härnqvist, 1978). "Conditions anticipated into choice situation"

describe those factors that affect the stage when individual is about to enter education. These are admission and selection rules, geographic availability and study finance. Härnqvist divides Society outside the educational system into three categories– demographic factors, occupation and economy as well as social and cultural conditions.

Table 4: Härnqvist's determinants of educational choice

Individual Determinants	**Institutional Determinants**

Student characteristics:
• sex,
• intellectual abilities,
• educational achievement,
• interests,
• aspirations
	Educational System:
	• conditions antecedent to choice
	  ○ curriculum emphasis,
	  ○ terminal vs transfer programs,
	  ○ differentiation system
	  ○ guidance organization
	• conditions anticipated into choice situation
	  ○ admission and selection rules,
	  ○ geographic availability,
	  ○ study finance.
	• predicted structural changes in education

Personal environment: • family background, • peer group, • school environment	*Society outside the educational system:* • demographic factors, • occupation and economy, • social and cultural conditions

Source: (Härnqvist, 1978; Andres, 1992)

Härnqvist noted that majority of the research has focused on the individual attributes of people making choices paying limited attention to intermediate factors that influence the final choice. He proposes that systematic analyses are needed to understand how earlier decisions influence the range of future choices. Moreover, he suggests that early and distant decisions might have a greater influence than those that immediately preceded the educational choice. Nonetheless, Härnqvist points out that distant determinants are relevant only to the extent to which they affect immediate determinants (Härnqvist, 1978; Andres, 1992).

Bourdieu's Theory of Practice and Härnqvist's model of educational choice complement each other. While Bourdieu demonstrates how individual factors such as family

background can have a strong influence on acquisition of cultural and academic capital, Härnqvist emphasizes the importance of institutional determinants such as study financing, admissions process and economic conditions in the country. When analysing HE Access, I look at two operationalized variables - *financial assistance* and *information availability*. Both could be classified as institutional variables in Härnqvist's model while in Bourdieu's Theory of Practice *information availability* links to social and cultural capital while *financial assistance* is influenced by economic capital.

2.2 HIGHER EDUCATION QUALITY

Some of the most well-known attempts to define quality have been done by Harvey and Green. In 1993 authors noted that quality is a relative concept as it means different things to different people and has diverse thresholds for processes and outcomes. Consequently, they proposed five definitions for quality – quality as exception, perfection, fitness for purpose, and value for money (Harvey & Green, 1993). Twenty-five years later, discussions are still ongoing about the optimal way to define quality (Tam, 2001; Lomas, 2002; Saarinen, 1995; Van Kemenade, Pupius, & Hardjono, 2008; Iacovidou, Gibbs, & Zopiatis, 2009; Prisacariu & Shah, 2016). Most policymakers in HE sector have adopted the definition of quality as "fitness of purpose" reasoning that quality has no meaning unless it is fit for purpose (Elassy, 2015). The issue underlying this definition is that it is not clear whose purpose should be addressed and how fitness is assessed. Despite the downsides, this definition is still widely used. Moreover, purpose and related targets are often defined and revised by higher education institutions in consultation with the main stakeholders, making this definition viable. Additionally, Gibbs has proposed a "good enough" definition of quality indicating that it is largely aligned with a "fit for purpose" definition. Yet instead of focusing on purpose, it aims to fulfil the expectations of the reference group to a reasonable level (Gibbs P. , 2011; Elassy, 2015).

The indicators selected to measure education quality are known to influence higher education politics as well as institutional priorities. Gibbs (2010) reviewed various quality dimensions and their effectiveness in a comprehensive literature review using 3P model. The model was first proposed by Biggs (1993), who approached education as a complex system consisting of presage, process, and product variables interacting with each other.

In its essence, the 3P model is similar to the "input-environment-output" model. Presage variables are those that already exist within a university context prior to student starting studies, and include resources, degree of student selectivity, quality of students and academic staff, as well as the nature of the research enterprise. Presage variables do not determine how the educational process is conducted, but they often frame, enable, or constrain this process. Process variables characterise teaching and learning activities using measures such as class size, amount of class contact, and the extent of feedback to students. Finally, product variables focus on outcomes of educational processes and include indicators such as student performance, retention, and employability. Nevertheless, the categorisation of variables is not always clear cut. For example, class-size is not considered a presage variable. Although it might be impacted by education policy decisions and funding levels, it cannot be predicted by either, and is largely a matter of educational decisions about teaching methods. Similarly, student engagement is seen as a process variable that influences education outcomes or so called product variables (Gibbs G. , 2010).

Gibbs has identified dimensions of quality that could be used to compare educational settings. He argues that since educational performance can be predicted by entry standards, to compare institutional performance in a valid way, it is necessary to measure educational gain. Educational gain is the difference between performance on a particular measure before and after the student's experience of higher education (Gibbs G. , 2010). Gibbs found that the best predictors of educational gain are measures of educational processes, namely what institutions do with their resources to optimize the learning experience for the students they have. These are a rather small range of well-understood pedagogical practices that foster student engagement such as class size (Lindsay & Paton-Saltzberg, 1987; Fearnley, 1995; Bound & Turner, 2005), level of student effort and engagement (Marton & Wenestam, 1978; Pascarella, 2005), as well as the quantity and quality of feedback provided to students (Black & Wiliam, 1998; Hattie & Timperley, 2007). At the same time, presage variables such as funding, research performance and reputation that enables HEIs to have highly selective entry, explain little about variations in educational gains. Moreover, although measures of educational product such as grades can be

predicted by presage variables, this is largely explained by best students competing to enter the best universities. “Quality of students” is a good predictor of such outcomes as grades. Additionally, measures of retention and employability are strongly influenced by presage variables (Gibbs G. , 2010). Thus, to measure educational gain, one should focus on improving process dimensions of quality; yet, presage variables are good predictors of outcomes.

Over the past several decades, quality of teaching and learning has become a strategic issue in higher education systems across the world (Harvey & Williams, 2010; Enders & Westerheijden, 2014). This trend has also increased the need to measure teaching and learning. For example, in Europe the Bologna process along with other concurrent developments, such as massification and internationalization of education, have accelerated the introduction and development of institutionalized quality assurance (QA) and quality management (QM) mechanisms. Additionally, under new public management principles, strong emphasis has been placed on standardized comparison of educational outcomes, rankings and a higher degree of university autonomy and accountability (Broucker, 2015). However, for many academics as well as other stakeholders, the rapid expansion of QA has become a burden rather than an opportunity, and the topic has sparked controversial debates (Anderson, 2006; Anderson, 2008). Previous studies suggest that such practices cannot reliably reflect teaching quality and therefore should not be used for management decisions, particularly the ones with budgetary relevance. Moreover, sceptics note that the quality of academic teaching cannot be broken down in measurable units and cause-effect relationships indicating any kind of impact on learners. Previous academic contributions clearly demonstrate that measurement of higher education quality is not an easy task (Seyfried & Pohlenz, 2018).

“Impact” of external quality assurance has received considerable attention in recent years both in practice and the academic literature (Beerkens, 2018). Despite sizable interest in impact studies on quality assurance in tertiary education, the field is still in its infancy (Stensaker, 2007) and has failed to adequately explore impact of quality assurance (Harvey, 2016). This is not due to lack of evidence collected. QA agencies and other

organizations have analysed the state of the higher education sector as well as various surveys on stakeholder satisfaction, graduate employability and graduate satisfaction (Damen & Hamberg, 2015). Yet, the impact of various quality assurance policies focused on student learning is still unknown (Beerkens, 2018).

In a context of this research, it is important to note that even within the academic community defining education quality has been a complex task. After several decades of discussion, consensus is still to be reached (Prisacariu & Shah, 2016; Harvey & Williams, 2010). Academics argue that selecting the right measurements to assess quality is difficult since it is hard to quantify quality (Seyfried & Pohlenz, 2018). Also, the impact of quality assurance policies is largely unknown (Beerkens, 2018). As previously mentioned, most policymakers in HE sector have adopted the definition of quality as "fitness of purpose" by reasoning that quality had no meaning unless it is fit for purpose (Elassy, 2015). This definition is used as a guideline also in this research.

To analyse HE Quality, I have selected four variables. These are *learning outcomes, teaching methods, internationalization* and *student life.* Given that there is no clear-cut definition on HE quality, the selection of these variables is based on push-pull analytical framework and comprehensive literature review of Gibbs. In his work Gibbs emphasizes educational gain which overlaps with *learning outcomes*. He also highlights the importance of process variables which largely correspond to *teaching methods*. Besides, Push-pull framework lists *internationalization* of the programs as one of the pull factors. Other push-pull factors include campus facilities and lifestyle considerations, which link to *student life.*

2.3 HIGHER EDUCATION OUTCOMES

The three most common theories relevant to higher education outcomes, are human capital theory introduced by Becker in 1962, signalling theory by Spence published in 1973 and "credentialism" discussed by Collins in 1979. Also, Hungerford and Solon introduced a term called "the sheep-skin effect" in 1987, which is also linked to

"credentialism". Since then, numerous authors have used these theories to understand the link between higher education and its outcomes, particularly in the labour market.

The concept of "human capital" had been first introduced by Adam Smith in 1776, but it gained its popularity after Mincer, Schultz and Becker published their articles on human capital in 1958, 1961, and 1962, respectively (Goldin, 2014). Schultz (1961) suggested that while many people acquire useful skills and knowledge, these actions are not recognized as a form of capital. This capital is a "deliberate investment" and "it has grown in Western societies at a much faster rate than conventional (nonhuman) capital". Human capital can be defined as productive wealth that is embodied in labour, skills and knowledge (Tan, 2014), but also refers to a people's knowledge and characteristics that contribute to their economic productivity (Garibaldi, 2006).

Mincer argued that differences in earnings are unlikely to be explained by human ability alone, and proposed that education, occupation (work experience) and age play a significant role in increasing productivity and earnings (Mincer, 1958). Likewise, Becker proposed that future earnings are influenced by investment in human capital, which could take various forms such as on-the-job training, education, and investment in health. These investments increase the physical and mental health of people and therefore raise their income prospects (Becker G. S., 1962). Both authors agreed that investment in human capital increases one's earnings potential in the future while minimizing financial returns at initial stages when a person postpones earnings to pursue education (Mincer, 1958) (Becker G. S., 1962) .

Given that life is finite and it is not possible to sell human capital, there is a decreasing rate of investment in human capital over the life cycle. This is also reflected in schooling that usually occurs early in life (Weiss Y. , 2015). Thus, earnings premiums should be higher for those who pursue longer training/education (Mincer, 1958). The theory has been criticised for its methodological, empirical and moral approach, but is still considered as sufficiently strong among academic community. It has founds its application in various fields such as economics, sociology and education (Tan, 2014) .

The second theory relevant to higher education outcomes is a "signalling" theory. When

Spence (1973) first introduced the "signalling" theory, he compared it to a lottery (a term imparted from a decision theory). Spence stipulated that in most job markets employers looking to hire a new employee are uncertain about employee's productive capabilities. Furthermore, even after hiring a new employee, an employer is unlikely to immediately obtain this information. Hence, Spence proposed that hiring is an investment decision entailing considerable uncertainty. It is similar to purchasing a lottery ticket. Still, he emphasized that an employer can obtain information about an individual's observable personal characteristics and attributes. Ultimately information on observable characteristics determines whether employer should hire someone. Spence distinguished between attributes that are fixed such as gender and race and attributes that are alterable such as education. He referred to fixed attributes as *indices* and alterable attributes as *signals*. Most applicants cannot influence indices, but they can alter the signals.

Signals such as education can be costly. Spence called these costs *signalling costs*. He proposed that one should only invest in education if prospective future wage offers sufficient return (Spence, 1973). According to the theory, students should choose their length of schooling to "signal" their ability to employers. At the same time, employers should demand a minimum level of schooling to "screen" the applicants. Both "signalling" and "screening" helps to sort workers based on their unobserved characteristics (Weiss A. , 1995).

A concept linked to "signalling" and "screening" is a "sheepskin effect". The underlying assumption of a "sheepskin effect" is that individuals with higher credentials earn more than their counterparts who have studied equal number of years, but do not possess such credentials. This phenomenon has been supported by several academic papers (Hungerford & Solon, 1987; Belman & Heywood, 1991; Jaeger & Page, 1996). Additionally, it can be explained by both signalling effect of the diploma as well as a productivity increase. As Chiswick (1973) suggested, graduates are more likely comprised of efficient learners who chose to complete their studies as learning enhances their productivity. On the other hand, dropouts are more likely comprised of inefficient learners who choose to leave studies as school only minimally enhances their productivity (Hungerford & Solon, 1987).

Both human capital and signalling theories support the idea that, on average, more highly educated individuals earn higher wages. Human capital theory is a full information model, which assumes that education directly increases productivity and consequently leads to higher wages. In this case, productivity is directly observed by both the individual and the employer. As a result, everyone selects their optimal level of education to improve their productivity and wage, given their personal abilities. The signalling model implies information asymmetries between individuals and employees. Since the employer cannot directly observe the individual's true productivity, he uses education levels as a signal to infer expected productivity. The equilibrium result in both models suggests that higher ability individuals obtain more education and consequently earn higher wages (Bostwick, 2016).

Additionally, Bostwick (2016) suggests that it is not only the duration of study that serves as a signal of abilities, but also the quality of the education. She proposes that high ability people signal their productivity by attending better ranked universities (e.g. ivy league schools) and choosing more demanding majors (e.g. STEM study fields) (Bostwick, 2016). There are, however, exceptions to this rule when capable people choose not to follow this path due to personal reasons or financial constraints. As her research did not directly test these assumptions, further research is needed.

Another theory important for understanding higher education outcomes is *credentialism.* Credentialism is defined as a "belief or reliance on academic or other formal qualifications as the best measure of a person's intelligence or ability to do a particular job" (Oxford University Press, 2018). More educated people are not necessary more productive, but their schooling "credentiates them as more productive" (Hungerford & Solon, 1987). Moreover, the educational credentialism thesis states that formal schooling leads to socioeconomic success not because of better skills and extended knowledge of educated, but because of their ability to control access to elite positions (Bills, 2003). This was also recognized in Max Weber's book "Economy and Society". Weber highlighted that educational credentials serve the purpose of monopolising access to positions within bureaucratic structures, leading to closing off opportunities to outsiders (Weber, 1978 [1922]; Tholen, 2017).

Soon afterwards, Collins (1979) questioned the value of education in his book - "The Credential Society". He suggested that education credentials serve primarily as a privilege-maintenance device rather than serving the changing needs of society (Murray, 1980). Collins also stated that schooling only marginally contributes to increase of skills needed in managerial and professional roles as these skills were mainly learnt on the job. The educated, however, could set up the job requirements and effectively exclude those without educational credentials (Tholen, 2017). Collins' preferred alternative was "credential abolitionism" since he saw the use of diplomas for screening applicants as a civil rights violation (Murray, 1980). It is important to note that Collins's initial analysis focused on the history of ethnic and cultural conflict, ingrained in turn-of-the-century immigration (Bills, 2003). Credentials, however, are instrumentally valuable to prospective employees. Proponents of credentialism have pointed out that often resumes without degrees from respected institutions are not taken seriously during the recruitment process even when an employee might be very capable. Also, economic forces have made credentials the object of educational achievement rather than by-product (Bidner, 2014). Both credentialism and Bourdieu's Theory of Practice point to systematic reproduction of social classes driven by elite societies albeit from slightly different angles.

A related phenomenon linked to credentialism is "credential inflation". It suggests that as the number of people with academic qualifications has substantially increased, the occupational level for which these people can qualify has decreased. In the past a given level of education gave access to elite jobs yet, as education attainment expanded, the social distinctiveness and the value of a given degree reduced in the marketplace. Collins (2011) compares credential inflation to a government printing more money, which leads to its devaluation and consequent inflation. The opposing theory states that raising educational requirements have been driven by the functional requirements of jobs in the modern society such as those in high-tech industry (Collins, 2011).

To analyse HE Outcomes, I have selected two variables – *labour market relevance* and *HE prestige*. "Human capital", "signalling", and "credentialism" directly discuss the link

between higher education and labour market. Furthermore, "signalling" and "credentialism" are relevant to HE prestige, particularly when information-asymetries are assumed. In addition to push-pull framework, these theories give an indication of what motives might drive students' desire to obtain higher education either in Latvia or in other EU countries. For example, students might want to increase their productivity by obtaining relevant skills (human capital theory), signal their capacities to employers (signalling) or obtain higher levels of education just to have adequate credentials (credential theory). Given credential inflation, students might also realize that to be competitive in the labour market, they need to have competitive credentials from prestigious institutions to be considered for attractive employment opportunities.

***

Chapter 2 provides an overview of the relevant theories linked to HE Access, HE Quality and HE Outcomes. These theories are complimentary to the selected theoretical framework, which is rooted in push-pull model. Numerous factors mentioned in the push-pull model are also discussed in the literature review. For example, pull factor-*available information* is related to social and cultural capital discussed in Bourdieu's Theory of Practice, and pull factor-*financial considerations* can be linked to study finance in Härnqvist's model of educational choice. The table below links selected variables to relevant theories and push-pull variables. The intention of the table is to provide an easy-to-grasp overview. This said, I acknowledge that it is the first attempt to link these theories to the selected variables, and different researchers might come to different classification outcomes.

Table 5: Overview of the selected variables and corresponding theoretical elements

Concepts	Variables	Corresponding theoretical elements
HE Access	Information Availability	• Bourdieu's Theory of Practice (social and cultural capital); • Härnqvist's model of educational choice (guidance organization) • Push-pull factor: available information
	Financial Assistance	• Bourdieu's Theory of Practice (economic capital); • Härnqvist's model of educational choice (study finance) • Push-pull factor: financial considerations
HE Quality	Learning Outcomes	• Biggs' 3P (presage, process, product) model as reviewed by Gibbs, focus on educational gain
	Teaching Methods	• Biggs' 3P(presage, process, product) model literature review by Gibbs, focus on process variables
	Internationalization	• Push-pull factor: internationalization of the program
	Student Life	• Push-pull factor: campus facilities, lifestyle considerations
HE Outcomes	Labour Market	• Becker's Human capital theory, • Signalling theory by Spence, • Push-pull factor: career opportunities, economic situation
	HE Prestige	• Signalling theory by Spence, • Credentialism theory by Collins • Push-pull factor: academic reputation, career opportunities,

Source - theories discussed: (Becker G. S., 1962; Biggs, 1993; Bourdieu P. , 1977; Collins, 1979; Gibbs G. , 2010; Härnqvist, 1978; Spence, 1973) & source - push-pull factors: (Ahmad & Hussain, 2017b; Altbach, 2004; Becker & Kolster, 2012; Chen J. M., 2017; Li & Bray, 2007; Mazzarol & Soutar, 2002; McCarthy, Sen, & Garrity, 2012; OECD, 2013; OECD, 2015).

3. RESEARCH METHODS

3.1 OPERATIONALIZING THE RESEARCH CONSTRUCT

The three concepts explored in this research were HE Access, HE Quality and HE outcomes. Since concepts are often vague, they must be further operationalized in a manner that allows their measurement and analysis (Andres, 2012). As this was exploratory research, the main concepts were only defined in the second stage of the research, after conducting the focus groups. Firstly, the literature review was performed on push-pull variables and most variables related to the context were included in the pilot survey used in the focus groups. During the focus groups students identified which variables are relevant and which are missing (e.g. they suggested that student life and HE reputation should be included in the final survey). After the focus groups, three main concepts emerged – HE Access (related to application process), HE Quality (related to direct education quality and student experience) and HE Outcomes (related to labour market relevance and HE prestige).

Each concept was operationalized by further narrowing it down to two to four variables. The first concept – HE access – was measured on available information and financial assistance. These are common factors in push-pull framework, but also found in Härnqvist's (1978) (study finance, guidance organization) and Bourdieu's (1986) work (Information Availability as a result of social and cultural capital). The second concept – HE Quality – was measured as *teaching methods, learning outcomes, international environment* and *student life*. Also these variables are commonly found in the push-pull framework (e.g. academic reputation, internationalization, lifestyle considerations) and importance of *teaching methods* and *learning outcomes* (educational gain) has been emphasized by Gibbs (2010). The third concept – HE Outcomes was measured as *labour market relevance* and *he prestige.* Some of the related push-pull variables are academic reputation, career opportunities and economic conditions. Related theories are human capital theory, signalling and credentialism. It was possible to include HE Prestige variable under HE Quality or even HE Access since students tend to select their institutions based on their reputation, and quality of education is likely to be affected by the reputation as

well. However, a diploma obtained from a prestigious institution will be of value long after the education is obtained, it will serve as a credential and a signalling mechanism. Thus, from a theoretical perspective, it was the most logical to place it in this section. Thus, in total 8 variables were selected and each variable was further measured on 4 to 9 dimensions – the actual survey questions (see table 5).

Table 6: An example of operationalized concepts

Concept	**Variable**	**Dimension (survey items): 4-9 dimensions per variable**
HE Access	Available Information	Admissions requirements; Available programs; Career Path; Etc.
	Financial Assistance	Study Loans; Living Expense Loans; Scholarships; Etc.
HE Quality	Teaching methods	Engaging; Relevant; Etc.
	Learning Outcomes	Skills acquired; Knowledge acquired; Etc.
	International Environment	Curriculum; Professors; Students; Exchange opportunities; Etc.
	Student Life	Campus Life; Study facilities; Social events; Etc.
HE Outcomes	Labour market relevance	Finding immediate job Beneficial to long term carrier Etc.
	HE Prestige	Appreciated by employers Appreciated by HEIs High on international rankings Etc.

Please find the complete list of dimensions for each variable in the appendix A. This table as an example and does not contain all the dimensions for each variable.

These dimensions are measured using a five-item Likert scale. Respondents were asked to assess to what extent they agreed with the statements about a given variable. An example of an operationalized HE access concept of the Information Availability variable is given below. The questions are comparable for Latvia and "the other EU countries". The full list of operationalized concepts is available in the appendix A.

Table 7: An example survey for information availability

Information Availability					
I know where to find information about...	Disagree	Rather disagree	Neither agree nor disagree	Rather agree	Agree
…HE system in Latvia	□	□	□	□	□
…admissions requirements for study programs in Latvia	□	□	□	□	□
…available study programs	□	□	□	□	□
…program fees	□	□	□	□	□
…program accreditation	□	□	□	□	□
…learning outcomes of study programs	□	□	□	□	□
…career	□	□	□	□	□

opportunities after completing studies					
…approximate salary in the field of interest	□	□	□	□	□
…professions needed in the labour market in the near future (next 3-5 years)	□	□	□	□	□

It is important to note that operationalization of variables is a subjective process where researcher's own judgement to some extent determines which variables from literature review should be included, and how are they organized. This is one of the limitations of mixed methods research using sequential exploratory research (Creswell, 2009). Natural groupings of variables can be achieved by use of factor analysis, but in this case sample size was too small for the number of dimensions included in the research.

3.2 RESEARCH DESIGN

The research design selected for this study is a mixed methods research, using a sequential exploratory strategy. The sequential exploratory strategy first focuses on qualitative analysis later followed by quantitative methods. This approach commonly consists of two or three consecutive phases. For the purpose of this research, a three-phase approach was employed. In the first phase qualitative data collection methods and analysis were used to explore an emerging theory (Morgan, 1998) or collect data to develop a new instrument (Creswell, 2009). In this case, several focus groups were conducted with a purpose to develop and pilot a new research instrument – a comparative survey to analyse

student perceptions of HE education in Latvia and other EU countries rooted in push-pull factor framework. During the second phase, building on the insights obtained from the first phase, a quantitative research instrument was developed. The third phase focused on quantitative data collection and analysis (Creswell, 2009). In this phase, the instrument developed during the second phase was administered to the sample of population using both online and in-person questionnaires.

The sequential exploratory strategy research design was selected for multiple reasons. First, as a mixed methods approach, this research design combines advantages of both qualitative and quantitative methods while eliminating some of the disadvantages associated with selecting only one of the methods (Denzin, 1978). Such an approach is also known as triangulation. Triangulation refers to use of multiple methods, data sources, and researchers with an aim to enhance the validity of research findings (Mathison, 1988; Andres, 2012). It is regarded as a helpful strategy to eliminate bias in order to make a more truthful proposition about a certain social phenomenon (Campbell & Fiske, 1959; Denzin, 1978; Webb, Campbell, Schwartz, & Sechrest, 1966). This said, the insights obtained from using multiple methods might differ since they can tap into different knowledge domains or introduce different measurement bias. Triangulation strategy can lead to three possible outcomes – convergence, inconsistency and contradiction (Mathison, 1988). Any of these outcomes provide additional insights about the validity of research findings.

Second, the primary focus of sequential exploratory strategy is to initially explore a phenomenon before drawing conclusions (Creswell, 2009). This research was started by identifying a problem – decreasing student numbers in Latvian HEI institutions and a high emigration rate to other EU countries after Latvia joined the EU in 2004. However, the reasons behind this phenomenon had to be explored, and focus groups allowed me to gain insights from students before creating a quantitative instrument to further test this phenomenon.

Third, a sequential exploratory strategy is well-suited to develop a new instrument when existing instruments are not adequate for the research purpose (Creswell, 2009). Although

extensive literature is available on push-pull factors, until recently most research focused on student movement from developing to developed countries, from non-English speaking to English speaking countries such as Australia, the US and the UK as well as Singapore, Malaysia and Hong Kong (Ahmad & Hussain, 2017a; Ahmad & Hussain, 2017b). Moreover, most often research utilizing push-pull factors focuses on the pull factors of the host country and push factors of the sending country (Mazzarol & Soutar, 2002; Altbach, 2004; Chen J. M., 2017; Lee S. W., 2017). The purpose of this research was to explore what factors students perceive as either appealing (pull) or as discouraging (push) both in their home as well as potential host countries and compare their relative attractiveness. Thus, Latvia was compared against other EU countries grouped as a region on the same dimensions. In addition, the context was different from traditional push-pull research since many of the obstacles that international students face world-wide (recognition of diploma, immigration rules and visa application, higher tuition fees) have been largely eliminated for EU citizens pursuing higher education in other EU countries (EU, 2011). Furthermore, removal of the obstacles for Latvia in 2004 was succeeded by a significant drop in student numbers in Latvian HEIs after academic year of 2005/06 (Central Statistics Bureau, 2018). Hence, there was a need to adjust the instrument to the social phenomenon highlighted in the research problem.

Finally, a sequential exploratory strategy is well-suited for testing elements of an emergent theory (Morgan, 1998). This research is based on push-pull factor theory although its standing as a solid theory is debated in academic community. The main concepts explored in this research – HE Access, HE Quality, HE Outcomes - have been discussed in the literature review in connection to related theories such as human capital theory, signalling and credentialism. These theories helped to develop the variables and specific dimensions for each concept. Thus, although this research does not test an emergent theory, I intends to understand how multiple theories can intertwine under the umbrella of push-pull factor theory.

The two main methods employed in this research are focus groups and surveys. Each method has its strengths and weaknesses. Focus group research is a data collection method

within a qualitative research setting. In the social science literature focus groups represent a type of group interview where participants are encouraged to discuss certain topics in an informal setting to uncover underlying issues (e.g., norms, beliefs, values) common to all participants (Parker & Tritter, 2006). Usually a researcher interviews around 6 to 8 participants in a group setting. The interviews are unstructured and commonly employ open-ended questions. Since through this research method the researcher intends to understand the views and opinions of the participants, the number of questions posed is rather low (Creswell, 2009). Similarly, in my research the number of students in the groups varied between six and nine. Furthermore, there were only three main questions focused on whether all items are clear, any are missing or the extent of redundancy.

There are several advantages of using focus groups. Focus groups provide qualitative insights supported by contextual information, and commonly generate considerably more data than other face-to-face methods such as interviews (Parker & Tritter, 2006). Moreover, focus groups support triangulation of research findings when combined with other methods (Mathison, 1988).

Surveys research provides a quantitative or numeric description of trends, attitudes, or opinions of a population by studying a sample of that population (Creswell, 2009). Survey research, however, can be employed for both qualitative and quantitative studies (Andres, 2012). Surveys can be conducted in-person, over the phone or in an online environment. Each mode has its advantages and disadvantages. For this research, in-person and online surveys were used. In-person surveys are likely to result in a higher response rate and better sampling, but can be more-expensive and time-consuming. Online surveys allow the researcher to reach out to large groups of people in a shorter period of time, can provide access to unique populations or populations affiliated with sensitive issues, and often save money and time associated with data processing, travelling and equipment (Wright, 2005). Additionally, most online surveys offer interactive interface allowing to add various multimedia tools, provide real-life tracking of response rates and, when combined with other methods, yield higher response rate. Nonetheless, online surveys usually only provide convenience sampling and are not adequate when probabilistic survey sampling

is required. Probabilistic survey sampling is generally recognised as necessary for statistical inference to any population outside the sample. Moreover, the response rate for digital surveys when not combined with other modes of survey are moderate to low. Thus, sampling errors and a high non-response rate are some of the major challenges associated with online surveys since information obtained is only valuable if it is accurate and representative (Fricker & Schonlau, 2002).

3.3 PARTICIPANTS

Before conducting any survey, it is important to define general population, target population, the sampling frame, the survey sample and respondents. This information helps the audience to determine to what extent research findings can be generalized (Andres, 2012). The population of this study was final year high school students in Latvia. This population was selected since it was well-suited to provide insights into specified research questions, that is, how Latvian final year high school student perceive HE in Latvia and other EU countries. The target population of this study was final year high school students across 333 schools in Latvia pursuing full time studies in 2018 (N=9 188). Approximately 36% (N=3 310) of these students studied in Riga (Ministry of Education and Science, 2018).

Due to time and resource constraints, a sampling frame was established. In total 51 schools were invited to participate in this research. From these schools, nearly 69 % (N=35) were located in the capital, around 25% (N=13) in three medium-sized cities, and 6% (N=3) in the countryside. Initially 29 schools were invited to participate both in focus groups and surveys, and, after enough schools agreed to participate in focus groups, additional 22 schools were invited to participate in surveys but not in the focus groups. The focus groups were scheduled two weeks prior conducting surveys to allow for enough time to incorporate the feedback obtained in the final survey design. Schools were offered the possibility to either participate in pen-and-paper surveys or digital surveys. In total, nine schools agreed to participate in surveys while only two agreed to participate both in surveys and focus groups. Additionally, the Student Union of Latvia (LSA) was invited to participate in one of the focus groups to provide a more holistic perspective. Different

participants were selected for focus groups and surveys to avoid potential bias arising from participants having previous knowledge of preliminary questions (Van Teijlingen & Hundley, 2001).

Three focus groups were conducted with 23 participants in total. The first focus group consisted of eight students from 11th grade from one of the participating schools. These students were selected, because the number of students in 12th grade in this school was relatively low. The second focus group was conducted with nine members from the Student Union of Latvia (LSA). LSA was invited to participate in a focus group to share practical insights about challenges many students face and provide feedback on language used in the questionnaire. Finally, the third focus group consisted of six 12th grade students from another participating school. The emphasis of this focus group was to pilot the instrument, but the groups also provided some oral and written feedback after piloting the survey. The age range for participants was between 17 and 24 years. Furthermore, 57% (N=8) were female while 43% (N=10) were male. More information on demographics for each focus group is available in the results section.

The survey sample consisted of 256 students from nine schools invited to complete the survey, representing the survey sample. From these students 232 started the survey (91%) and 224 students completed it (88%). Thus, the final sample contained 224 survey respondents. In social sciences research a response rate above 50% is considered acceptable (Richardson, 2005; Baruch & Holtom, 2008), although response rate of 60% or higher is desirable (Richardson, 2005). A high response rate reduces non-response bias (Sedgwick, 2014). Thus, the response rate for this survey can be considered relatively high since the response rate was 100% for pen and paper surveys and 61% for digital surveys. Out of 82 participants invited to participate in digital surveys (as reported by teachers), 71% (N=58) opened the survey and 61% (N=50) completed it. The surveys that were started, but not completed (N=8), were excluded from the final data set. Thus, in the final data set majority of participants 78% (N=174) had completed pen and paper surveys while 22% (N=50) finished digital surveys. The average age of participants was 18.3 years. Only 6.7% (N=15) reported studying in rural areas while 92.9% studied in urban areas, 0.4%

(N=1) did not report the value. Nearly 63% (N=142) of students were from the capital city (see table 8).

Table 8: An overview of participating schools by demographics

School	Participants Invited	Surveys started	Surveys completed	Started /invited	Completed/ invited	Completed/ started	Type	Setting	Rural/ urban
School # 1	3	3	3	100%	100%	100%	digital	individual	rural
School # 2	11	11	11	100%	100%	100%	digital	in-class	rural
School # 3	43	25	21	58%	49%	84%	digital	individual & in-class	urban
School # 4	25	19	15	76%	60%	79%	digital	in-class	urban*
School # 5	13	13	13	100%	100%	100%	paper	in-class	urban*
School # 6	44	44	44	100%	100%	100%	paper	in-class	urban*
School # 7	20	20	20	100%	100%	100%	paper	in-class	urban*
School # 8	50	50	50	100%	100%	100%	paper	in-class	urban*
School # 9	47	47	47	100%	100%	100%	paper	in-class	urban
Total	256	232	224	91%	88%	97%			

*Urban-Capital

3.4 RESEARCH PROCEDURE

The research procedure was split into four consecutive phases aligned with the sequential exploratory research design. The first stage entailed sending invitations to schools to ensure that sufficient number of schools agree to conduct focus groups and surveys with their students. During the second stage, focus groups were conducted to develop and test the survey instrument. During the third stage, the research instrument was revised based on the insights obtained from the focus groups. In the fourth and final stage, surveys were conducted.

Thus, the first step was to invite schools to participate in this research project. Between February and April 2018, 51 schools were contacted via an e-mail and invited to participate in surveys and/or focus groups. All the schools received an official invitation addressed

to the director of the school. The invitation explained the research purpose and relevance, desired target group, research procedure, timeline and anonymity of the collected data. In March, follow-up calls were conducted with schools who had not yet responded. The status of participating and non-participating schools was recorded in an Excel document.

During the second stage, three focus group session were conducted; two at schools and one with the Student Union of Latvia (LSA). The goal of the focus groups was to develop a survey instrument based on student feedback to ensure that the final survey is appropriate for the selected audience. This was done through semi-structured focused groups where I served as the sole moderator where peer discussions were highly encouraged. The first two focus groups focused on the content while the third group piloted the instrument. Each focus group consisted of 6 to 9 participants aged between 17 and 25. The two focus groups with high school students lasted approximately 40 minutes. The teacher was asked to select the participants at random, but with relatively equal gender distribution. The third focus group was with the Student Union of Latvia (LSA) and lasted 2.5 hours. The purpose of the study and importance of their feedback to ensure validity and reliability of the research instrument was explained to the participants of the focus groups. Furthermore, students were told that information they provide would be reported anonymously and, since surveys measure perceptions, there is no right or wrong answer and all feedback is welcome. The students who participated in focus groups were excluded from the student sample who completed the surveys in a later stage.

Participants of all three focus groups received a hard copy of a draft survey in the Latvian language. Participants of the first two school-based groups looked through the sections of the draft instrument and discussed whether any items are unclear, redundant or missing guided by the moderator. The aim of such approach was to ensure content validity by checking if the right questions were asked and whether they were clear and understandable (Creswell, 2009). The last focus group only piloted the survey to check the time required to complete the survey. Nonetheless, participants of the third focus group were encouraged to share their feedback orally or leave their comments after completing the survey. At the third stage the final design for the paper and digital surveys were developed.

During the fourth and final stage, surveys were shared with 256, from whom 224 participants completed the survey. The paper and pen survey was distributed in the classroom setting in a hard copy format with the researcher present in the classroom. The self-administered survey completion required approximately 30 minutes while the official duration of a lesson in Latvia is 40 minutes. The first five minutes of the class were used to explain the purpose of the survey, ensure data confidentiality and answer any immediate questions. Students were also informed about possibilities to obtain the results after the study. Participants who completed the survey before the end of the class were allowed to leave the class unless the teacher stated otherwise. Digital surveys were distributed by providing an official e-mail to teachers with a survey link, who forwarded the surveys to the students. While some teachers dedicated one of the classes to administer the digital survey in a computer room, others asked students to fill in the surveys at their own time. After all data were collected, the pen and paper surveys were manually converted to a digital format and merged with the digital surveys.

3.5 RESEARCH INSTRUMENT

The main research instrument selected for this study was a quantitative self-administered a Likert-type survey with a theoretical framework initially rooted in "push-pull" factor analysis and later adjusted based on insights gained throughout the focus groups. The survey consisted of four main sections. The first section asked about students' study intentions and preferred study destinations. The second and third sections asked about HE access, HE quality and HE outcomes in Latvia and other EU countries, respectively. These were the core questions of the survey. The fourth section inquired about demographic information and external influences. In total, survey consisted of 134 questions.

The format used for core questions were self-statements, referring to student perception of various aspects of HE education (e.g. "I believe that obtaining higher education would benefit my career in a long term.") Offered responses were measured on the Likert scale, using five-unit measurement scale (Disagree – Rather disagree – Neither agree nor disagree– Rather Agree – Agree). Although commonly a Likert scale includes such

alternatives as “strongly disagree” or “strongly agree”, this type of phrasing is uncommon in Latvia, and therefore milder statements such as “agree” and “rather agree” were used instead. This modification was suggested by the second focus group since such language was better understood in everyday context. A Likert scale was used because it allowed me to measure attitudes in a quantitative manner and create indices by averaging results obtained in underlying dimensions. One limitation of closed-ended questions common in a Likert-type scale is the possibility of missing relevant information. However, this limitation was partially mitigated by conducting focus groups.

In order to comply with ethical considerations, instructions were communicated verbally as well as in a written format placed on the first page of the questionnaire. These instructions stated the purpose of the research and explained that there are no right or wrong answers since the survey focuses on student perception. Moreover, students were assured that information provided would remain anonymous and all analyses would be conducted on an aggregate level.

3.6 STATISTICAL ANALYSIS

The statistical methods selected for this research were descriptive statistics of the main variables followed by Cronbach’s alpha analysis to measure reliability of the composite indicators. To test the first hypothesis, paired samples T-test was employed while for regression analysis was used to test the second hypothesis. Each method is described briefly below.

To obtain basic understanding about the dataset, information on students’ preferred destinations and demographic variables were reviewed. First, information on preferred study destinations within the EU countries was collected to understand student preferences with regards to their study destinations, which likely influenced their perception of available education in other EU countries. Second, data on the gender distribution was examined. Latvia is one of the few countries where girls outperform boys in PISA tests (OECD, 2017a). Also, male students are more likely than girls to leave school early (OECD, 2016a), and more females (59% in 2015) than males (31.3%) graduate from tertiary education programs (OECD, 2018). Third, the survey data were examined to

understand how many students came from urban and rural areas. This is important since such international tests as PISA show that education levels in rural areas are considerably lower than in urban areas (OECD, 2016a), and might negatively affect the abilities of rural students to qualify for studies abroad. Fourth, since the research shows that parental educational attainment is a likely predictor of the child's educational attainment, the highest level of mother's and father's educational attainment was reviewed. In OECD countries, young adults whose parents have obtained tertiary education are twice as likely to attend tertiary education than students whose parents obtained secondary education (OECD, 2014b).

To test the reliability of composite indicators, Cronbach's alpha test was employed. Cronbach's alpha, a measure of internal consistency for scales, was first proposed by Cronbach in 1951. He himself referred to it as coefficient alpha (Cronbach, 1951), but most people in academic community use the term Cronbach's alpha. Cronbach's alpha is the most widely used measure of reliability of scales. Its popularity might be at least partially attributed to its convenience. In comparison to other similar tests, it does not require two administrations of scale or two or more raters, demanding less effort (Streiner, 2003). Reliability of the instrument is concerned with the ability of instrument to measure consistently, namely obtaining the same results after multiple measurements. The other important dimension of a research instrument is validity, which examines whether the instrument measures what it is intended to measure. An instrument cannot be valid unless it is reliable. However, reliability of an instrument does not depend upon its validity (Tavakol & Dennick, 2011). For example, an instrument can obtain consistent results that have a systematic error or bias (Streiner, 2003).

Calculating Cronbach's alpha has become a widespread practice when multiple-item measures of a concept or construct are employed (Tavakol & Dennick, 2011). The calculation of Cronbach's alpha is based on number of items in a scale, the total variance and the sum of the variance of all items (Streiner, 2003).

Cronbach's alpha normally ranges between 0 and 1 although there is no lower limit to the coefficient (Gliem & Gliem, 2003), and it can also be negative. This happens mainly when some of the items are negatively correlated with other items in the scale. It can happen

when a researcher has used reversed scale and has not recoded the result. However, if the scales are correct yet correlations are negative, this can point to serious issues in the research instrument (Streiner, 2003).

Generally, the closer the Cronbach's alpha is to 1, the greater the internal consistency of the items in the scale (Gliem & Gliem, 2003). There is no clear-cut consensus on acceptable values of Cronbach's alpha, but various rules of thumb are provided by the academic community. Commonly accepted values of Cronbach's alpha range between 0.7 to 0.95 (Tavakol & Dennick, 2011), and depend upon the type of research. Lower levels of alpha are acceptable for early stages of research (>0.7) while higher are expected for basic research tools (>0.8) and clinical purposes (>0.9) (Streiner, 2003). George and Mallery (2003) proposed the following principle: "> .9 - Excellent, > .8 - Good, > .7 - Acceptable, > .6 - Questionable, > .5 - Poor, and < .5 – Unacceptable" (Gliem & Gliem, 2003). A low value of alpha could be attributed to multiple reasons such as a small number of questions, poor interrelatedness between items or heterogeneous constructs (Tavakol & Dennick, 2011). However, Cronbach's alpha over 0.9 might indicate redundancy among items as some items might test the same question in a different manner. Thus, a maximum value of 0.9 has been recommended (Tavakol & Dennick, 2011).

Despite Cronbach's alpha being the most widely used measure of scale reliability (Streiner, 2003), it has several limitations and has been criticised in the academic literature for being "commonly misconceived and widely misused" (Cho, 2016). When the test is not properly used, it can be discarded or criticised for not providing reliable results. Firstly, Cronbach's alpha is rooted in the "tau equivalent model", which assumes that each test item measures the same latent trait on the same scale – it is unidimensional. Thus, if multiple items underlie the scale, this assumption is violated and alpha underestimates the reliability of the test (Tavakol & Dennick, 2011). Factor analysis can be used to identify the dimensions of a test (Gliem & Gliem, 2003), (Tavakol & Dennick, 2011). Secondly, Cronbach's alpha is affected by the number of the items in the scale – it becomes larger as the number of items increases (Streiner, 2003). Yet, even though Cronbach's alpha is partially determined by the number of items in the scale, adding more items eventually has diminishing returns (Gliem & Gliem, 2003). Hinkin et al (1997) recommended that final

scales should consist of four to six items. Such scales reduce dimension inflation and are less likely to include multiple dimensions (Field, Discovering Statistics using SPSS, 2013), (Samuels, 2015). In this research, most variables (10 out of 16) had between 4 to 6 dimensions while 6 only slightly exceeded the recommendation, having between 7 to 9 items in scale. Furthermore, to limit the potential risk of Cronbach's alpha measuring multidimensional concepts, reliability analysis was used on each operationalized variable rather than one of the three concepts (e.g. information availability and financial assistance variables for access to higher education concept)

Paired samples t-test was used to answer the first hypothesis – whether there is a significant difference in student perception about HE in Latvia and other EU countries. For normally distributed data, t-tests are some of the most commonly used statistics method for comparison of differences between two samples to understand if they come from the same population (Xu, et al., 2017). Two types of t-tests are available – independent means t-test and dependent means t-test. Independent means t-test is used when there are two experimental conditions and different participants are assigned to each group (Field, 2005). The groups are considered independent if the selection of individuals for one group did not affect the selection procedure for the other group in any way (Xu, et al., 2017). The test is sometimes called independent samples or independent measures t-test.

Dependent t-tests can appear in several different designs. A dependent means t-test is commonly used to measure the same participants at two points in time, for instance for before and after treatment. Thus, it is also sometimes called a repeated measures design. However, a dependent t-test can also be used when participants are naturally matched, for instance twins or couples, or when participants are matched on certain criteria such as IQ or age (Rietveld & Hout, 2017), (Xu, et al., 2017), (Field, 2005). Then each participant from a pair is measured once and the results are compared. In my research, each person was first measured on their perception regarding HE in Latvia and then right afterwards about their perception regarding HE in the EU. It was assumed that personal characteristics

of each person is likely to influence the measurement, thus dependent t-test was selected to compare the two measurements.

Both dependent and independent t-test needs to fulfil two assumptions. First, both tests are parametric tests, which means that data should be collected from normally distributed populations. Second, data should be available on an interval level rather than being ordinal (Field, 2005). This said, academics is social sciences often use ordinal data such as those collected using Likert scale similarly to how interval data are used. An independent t-test has two additional assumptions. First, scores need to be independent between the two groups and, second, variances in the population are roughly equal (Field, 2005). For my research, composite variables were created by obtaining mean values of underlying dimensions for each variable. In total 16 variables with a scale data type were obtained. The values for all 16 variables were roughly normally distributed. Moreover, it was not possible to use an independent T-test since the approach of two independent samples did not hold true since the same person was measured twice and measurements therefore were not independent from each other.

To test the second hypothesis, regression analyses were used. The hypothesis stated that students' perceptions of HE in Latvia and other EU countries are likely to influence their intention to study abroad. More specifically, the higher the student's perception of HE in Latvia, the less strong would be their intention to pursue their studies in other EU countries. On contrary, the higher the student's perception of HE in the EU, the stronger their intention to pursue their studies in other EU countries.

Multiple regression analyses are a set of statistical techniques used to assess the relationship between one dependent variable (DV) and several independent variables (IVs). It is important to note that while regression analysis reveals relationships among variables, they do not imply causation (Tabachnick & Fidell, 2012). Moreover, in multiple regression a mix of continuous and categorical independent variables can be included to simultaneously assess the combined effect on the dependent variable (Pandis, 2016).The formula for multiple regression analysis is following:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \ldots + \beta_k X_k + \varepsilon$$

In this equation Y represents the dependent variable (DV), X represents the independent variables (IVs) and k represents the number of independent variables in the equation. Furthermore, β_0, β_1, $\beta_2 \ldots$ β_k are the regression coefficients and ε is the error term (Chatterjee & Hadi, 2013). The goal of the regression analysis is to obtain regression coefficients that bring predicted Y values as close as possible to Y values obtained by measurement. Computed regression coefficients accomplish two aims. Firstly, they minimize deviations between predicted and obtained values. Secondly, they optimize correlation between the predicted and obtained Y values (Tabachnick & Fidell, 2012). One of the most important statistics derived from regression analysis is multiple-correlation coefficient (R) or the Pearson product-moment correlation coefficient between obtained and predicted Y values (Tabachnick & Fidell, 2012). Large values of multiple correlation coefficient or R represent a large correlation between predicted and observed values of the outcome. Furthermore, the R^2 value is interpreted as the amount of variation in the outcome variable that can be accounted for by the model. The difference between values predicted by the model and the values observed are known as residuals, and they represent the error in the model (Field, 2005).

To draw conclusions about population based on regression analysis, several assumptions must hold. First, all IVs must be quantitative or categorical, the DV needs to be quantitative and continuous (A1: variable types). Second, predictors should have some variation in value (A2: non-zero variance). Third, independent variables should not have a perfect linear relationship (A3: no multicollinearity). The fourth assumption states that independent variables should not be correlated with external variables – variables that have impact on the outcome variable, but are not included in the model (A4: IVs not correlated with external variables). The fifth assumption states that variance of independent variables should be constant. This is known as homoscedasticity while the opposite is known as heteroscedasticity (A5: Homoscedasticity). The sixth assumption states that for any two observations, the residual terms should be uncorrelated or independent from each other. Durbin-Watson test is often used to check this assumption (A6: Independent errors). The seventh assumption states that the residuals in the model are random and normally

distributed variables with a mean of 0 (A7: Normally distributed errors). The eighth assumption states that values of the outcome variables are independent, meaning that the outcome value for each variable comes from a separate entity (A8: Independence). The ninth assumption states that the mean value of DV for each IV lies along a straight line, or that the model relationship is linear (A9: Linearity). While complying with the assumptions makes the model less biased and more generalizable, it does not guarantee a true representation of the sample. It does, however, increase the likelihood. When assumptions are considered, on average, the regression model from the sample is the same as the population model (Field, 2005).

Terms regression and correlation can both be used to label these procedures, although the term regression is more commonly used when the intention is to predict the dependent variable and the term correlation is used when the intent is to assess the relationships between dependent and independent variables (Tabachnick & Fidell, 2012). In this research, dependent variable is student intention to study in other EU countries while 16 composite variables represent the independent variables. Additionally, five control variables included in the model were gender, first language at home, geographic location (urban/rural), mother's and father's highest level of education.

4. RESULTS

4.1 QUALITATIVE RESULTS – FOCUS GROUPS

Due to exploratory nature of this research, three focus groups were organized prior to conducting the surveys. The goal of the focus groups was to develop and test the research instrument – the survey. A detailed explanation of the research procedure was described in section 3.4 - *Research Procedure.* A brief description of each of the three focus groups and key insights obtained are provided below while more comprehensive overview of all the feedback can be found in table 7.

The first focus group (FG_1) consisted of eight participants from 11th grade aged between 17 and 18. I used students one grade below the target group in order to include all the 12th grade students in the final survey sample since the class size was rather small (<15). Alternatively, nearly half of the class from 12th grade would have participated in the focus group. In total six female and two male participants took part in the focus group. While a comprehensive overview of their feedback is available in the appendix B, four key insights were obtained.

First, with regard to HE Access, students indicated that it was easy for them to find information about study programs and HEIs both in Latvia and abroad (they would use google for it), but they were not sure where to find information about their potential career paths, expected salaries in their fields of interest or demand for professions in the labour market within the next 3 to 5 years. Students collectively agreed that they could discuss these topics with parents or look up current salaries for some of the job postings. Moreover, a few students recalled that two annual exhibitions take place in the capital city – one focusing on local HEIs in Kipsala requiring an entrance fee and one focusing on foreign institutions held in the Radisson Hotel free of charge. They thought that representatives of these institutions could probably provide more information not only about the programs, but also potential career paths afterwards. Some students indicated that a person's future salary is likely to depend on how good one is rather than the field selected.

Second, students actively discussed the topic of *financial assistance*. One of the draft survey items stated that "it is easy to qualify for a loan". Students said that it might be easy to qualify for a loan, but it is not always "a good deal", especially in Latvia, where most student loans are offered by commercial banks. They gave an example of the UK where as an EU citizen one can qualify for a loan and is only required to repay the loan after obtaining a job years later. However, in Latvia a prospective student either needs a steady income or a guarantor, most often one of the parents. Yet, parental income also needs to be at a certain threshold. Students suggested that an additional question should be added asking specifically whether the loans provided have favourable conditions and are, as such, a "good deal". The second focus group shared similar opinions regarding loans (see the appendix for more details).

Third, the labour market relevance of higher education was another topic that received a lot of attention. One of the items stated that obtaining HE will help students to qualify for jobs that fit their expectations. The majority of students agreed that higher education is likely to help one to qualify for a job when compared to applicants with no higher education. However, it would not be enough, according to students to *"land your dream job"*. You *"need to know how to talk, a work experience is a must. You almost always need to start as a volunteer"*. Alternatively, *"you have to have a good network"*. This view also emerged among participants of the second focus group (see the appendix B for more details). Finally, FG1 suggested that two more sections be included – *HE reputation* and *student life*. The group said that most students aspire to study in well-known institutions and they also care about exciting campus life.

The second focus group (FG_2) consisted of nine participants representing the Student Union of Latvia (LSA) aged between 21 and 24, all participants were also undergraduate students from different Latvian HEIs, representing various fields of study. The organization collaborates with the Ministry of Education and Science to provide the student perspective on higher education policy in Latvia. In total four female and five male participants took part in the second focus group. Two additional key insights were obtained from this focus group. First, the group thoroughly debated whether it is easy to

qualify for the state funded study places in Latvia. The group knew that roughly 50% of all students every year qualify for state funded study places. Yet, they pointed out that it is much easier to qualify for a study place in STEM sciences since the Latvian government aims to increase the number of STEM graduates and subsidizes more study places in STEM fields. However, as one second year STEM student explained, to attract more applicants, the entry requirements in STEM programs are set quite low. Therefore, many students with relatively weak results in mathematics and sciences enrol in these STEM programs, qualify for the state-financed study places, but drop-out after the first year. This indicates that the state funds are spent quite ineffectively and students lose time.

Second, the FG_2 indicated that many students decide upon their final study direction and HEIs, including the country only a few months before starting their tertiary studies. This happens because results for the state-financed study places are released only in the middle of the summer. Many students are willing to change their first study choices based on the likelihood of obtaining state-financed study places. Thus, it is hard to give a reasonable estimate about their intentions to study abroad or in Latvia already in spring (when the research was conducted). There are students who seriously consider both options, but make the final choice after knowing the results for state-financed study places.

The last focus (FG_3) group consisted of 6 participants from the 12th grade. Participants were between 17 and 19 years old, three were female and three were male. This group represented one of the most competitive high schools in Latvia, which is relevant for the insights obtained. In total, three key insights were obtained during this focus group. Students suggested that whether one qualified for state-funded study places in Latvia largely depends on which high school one attends. This is because usually students from better high schools obtain better results in centralised exams, which consequently influences whether or not one will qualify for state subsidized study places. The group said that although most of their peers are confident that they will qualify for these study places, this is unlikely to be the case for less competitive schools. This was also supported by the final survey results, which indicated that 80% of respondents from this school either agreed or rather agreed that it is easy to qualify for state funded study places (excludes FG_3 respondents). Respondents from other schools selected these categories considerably

less often. Depending on the school, between 23 to 50% of respondents had selected these two categories.

Besides, FG3 respondents said that financial assistance available in other EU countries varies significantly per country. In some countries fees are high, but loans are affordable such as the UK; in other countries there are no fees, but it is also difficult to qualify for a loan to cover living expenses. Lastly, discussing HE reputation and funding, students said that most of their peers prefer to go to better ranked HEIs. Some planned to apply for highly ranked institutions abroad and keep state-subsidized study places as a back-up. In case their application abroad would be rejected, these students would opt for a state subsidized place for a year and then reapply for a better ranked HEIs abroad the following year. To obtain more details about other items discussed in the focus groups, please consult the table in appendix.

4.2 QUANTITATIVE RESULTS – DESCRIPTIVE STATISTICS

In this section, I summarize descriptive statistics for demographic variables and preferred study destinations. The table 6 provides an overview of demographic information used as moderating variables in the conceptual framework of second hypothesis. Selected moderating variables include gender, whether participant comes from rural or urban area, first language at home and highest educational attainment of parents.

As can be seen from the table below, the sample population has slightly more females (53.6%) than males (45.5), more than 90% (90.2) have the Latvian language as their first language in the family and a large majority comes from urban schools (92.2%). More than 70% of respondents reported that their mothers had obtained bachelor's, master's or PhD degrees while more than 50% reported similar qualifications for their fathers.

Table 9: An overview of demographic variables

Variable	*Categories*	*Count*	*Percent*
Gender	*Male*	*102*	*45.5*
	Female	*120*	*53.6*
	Missing	*2*	*0.9*
Total		***224***	***100%***
1st language in family	*Latvian*	*202*	*90.2*
	Russian	*14*	*6.2*
	Latvian and Russian	*4*	*1.8*
	Missing	*4*	*1.8*
Total		***224***	***100%***
Urban/rural School	*Urban*	*208*	*92.9*
	Rural	*15*	*6.7*
	Missing	*1*	*0.4*
Total		***224***	***100%***
Mother's highest education attainment	*Primary*	*0*	*0*
	Secondary	*1*	*0.4*
	High school	*17*	*7.6*
	Professional Education	*39*	*17.4*
	Higher education – Bachelor's level	*65*	*29*
	Higher education – Master's level	*84*	*37.5*
	Higher education – Doctorate's level	*15*	*6.7*
	Missing	*3*	*1.4*
Total		***224***	***100%***
Father's highest education attainment	*Primary*	*1*	*0.4*
	Secondary	*4*	*1.8*
	High school	*26*	*11.6*
	Professional Education	*62*	*27.7*
	Higher education – Bachelor's level	*39*	*17.4*
	Higher education – Master's level	*68*	*30.4*
	Higher education – Doctorate's level	*17*	*7.6*
	Missing	*7*	*3.1*
Total		***224***	***100%***

According to 2017 census data, slightly more than half of the total Latvian population was represented by females (54.1%) and 68% lived in the urban areas. Furthermore, 68% of population was registered as ethnically Latvian while 25.4% as ethnically Russian. Still, 85.7% of population had Latvian citizenship (CSB, 2017). Additionally, in 2017 slightly more than one third (33.9 %) had obtained tertiary level degrees (OECD, 2018); the percentage was more that 40% for Latvian citizens aged 25-34 (OECD, 2018). Thus, the sample in this study is rather representative of Latvian population except for the relatively

high reported education attainment for parents. It is also important to note that our target population was final year high school students in Latvia, thus demographic statistics for this group is likely to be slightly different than statistics for the general population. It was not possible to obtain comparable statistical data for this group on all the relevant indicators.

Next, students were asked to select their top 3 to 5 potential EU study destinations. This information helps to interpret the results associated with the perception variables on other EU countries. Their top 10 choices are discussed below and available in table 7. Each country could be selected only one time and the sequence in which the countries were written down did not matter (see table 7). Results indicated that despite the UK leaving the EU in 2019, it was still the most popular study destination selected by nearly 60% of the respondents. It is important to note that many students specified (both in the focus groups and on the survey) that they chose the UK, because they would like to go to Scotland where currently studies are offered for free to the EU citizens (MasterPortal, 2018). Furthermore, more than half of respondents selected Denmark (55.6%), the Netherlands (52.3%) and Germany (50.5%). As the results show, these four countries were chosen considerably more often than the remaining six countries.

Table 10: An overview of TOP 10 destination countries

Top 10 countries	***# of respondents***	***% of respondents***
The UK	*127*	*59,3*
Denmark	*119*	*55,6*
Netherlands	*112*	*52,3*
Germany	*108*	*50,5*
Sweden	*73*	*34,1*
France	*54*	*25,2*
Italy	*45*	*21,0*
Spain	*43*	*20,1*
Finland	*38*	*17,8*
Estonia	*24*	*11,2*

It is important to note that the three Nordic countries (Denmark, Sweden, Finland) located in near proximity made the top 10 as well as neighbouring Estonia. This might indicate

that geographic proximity to home country is still an important factor. At the same time, these countries do not charge tuition fees from any of the EU citizens, which is also likely to increase their appeal (MasterPortal, 2018).

4.3 QUANTITATIVE RESULTS – RELIABILITY ANALYSIS

To create composite indexes, a reliability analysis was performed for 16 variables related to HE perception, eight variables for Latvia and eight for other EU countries (see table 8). The number of items for each scale varied between 4 to 9. Cronbach's alpha value was above 0.75 for all scales (#15) except *financial assistance* for the EU countries, where Cronbach's alpha value was 0.688.

Table 11: An overview of Cronbach's alpha values for 16 composite variables

Variables	alpha for HE variables in Latvia	alpha for HE variables in other EU countries
HE Access		
available information	0.841 (N=9)	0.932 (N=9)
financial assistance	0.788 (N=9)	0.688 (N=9)
HE Quality		
teaching methods	0.809 (N=7)	0.912 (N=7)
internationalization	0.789 (N=6)	0.910 (N=6)
learning outcomes	0.783 (N=4)	0.834 (N=4)
student life	0.841 (N=6)	0.915 (N=6)
HE Outcomes		
labor market relevance	0.851 (N=5)	0.893 (N=5)
HE prestige	0.777 (N=4)	0.846 (N=4)

It was possible to increase the scale value for *financial assistance* in the EU index to 0.769 by removing one of the items – "I think that the total study and living fees (for a student) are too high for an average Latvian family" (reversed scale). This item also had a corrected item total correlation below 0.3 (-0.214). However, due to consistency purposes and the relevance of the item, I decided to keep it. The remaining scales were above the recommended 0.7 threshold for alpha, and three scales (*available information EU; teaching methods EU; student life EU*) slightly exceeded recommended upper limit of

alpha above 0.9. However, since these scales were just above the threshold, and the corresponding values for Latvia were below the alpha 0.9 threshold, again, I decided to keep all the items to make meaningful comparisons. Listwise deletion (default in SPSS) was used for all variables in the procedure, valid values varied between 217 and 224 for the 16 variables.

4.4 QUANTITATIVE RESULTS – HYPOTHESIS I

Paired samples T-tests were used to test the first hypothesis. The alternative hypothesis stated that there is a significant difference in students' perceptions of HE in Latvia and other EU countries. These tests were used to compare students' perceptions on eight variables. A significant difference was found for all variables except *financial assistance*. Also, the mean values for HE in other EU countries exceeded the mean values for HE in Latvia on all variables except *available information*. Listwise deletion (default in SPSS) was used for all variables.

Table 12: An overview of paired-samples T-tests to test Hypothesis I

Variables	**Mean LV**	**Mean EU**	**SD LV**	**SD EU**	**T -stat**	**DF**	**Sig. (2-tailed)**
HE Access							
available information	3.94	3.64	.657	.893	5.425	221	.000*
financial assistance	2.91	2.89	.636	.530	.569	221	.570
HE Quality							
learning outcomes	3.70	4.25	.736	.660	-10.006	223	.000*
teaching methods	3.28	4.09	.668	.699	-15.118	223	.000*
internationalization	3.44	4.17	.683	.755	-12.213	223	.000*
student life	3.52	4.16	.728	.726	-11.170	222	.000*
HE Outcomes							
labor market relevance	3.71	4.29	.828	.669	-10.203	222	.000*
HE prestige	2.76	4.37	.810	.672	-22.507	223	.000*

The first concept examined was HE Access, consisting of two variables – *available information* and *financial assistance*. Students reported a significantly higher perception of *available information* in Latvia (*M*=3.94, *SD*=0.657) than in other EU countries (*M*=3.64, *SD*=0.893), *t* (221) =5.425, *p*<0.01. Students, however, did not report significant differences in their perception of *financial assistance* in Latvia (*M*=2.91, *SD*=0.636) and the other EU countries (*M*=2.89, *SD*=0.530), *t* (221) =0.569, *p*=n.s.

The second concept examined was HE Quality, consisting of four variables – *learning outcomes*, *teaching methods*, *internationalization* and *student life*. Students reported a significantly higher perception of *learning outcomes* in other EU countries (*M*=4.25, *SD*=0.660) than in Latvia (*M*=3.70, *SD*=0.736), *t* (223) = -10.006, *p*<0.01. Similarly, students also indicated a significantly higher perception of *teaching methods* in other EU countries (*M*=4.09, *SD*=0.699) than in Latvia (*M*=3.28, *SD*=0.668), *t* (223) = -15.118, *p*<0.01. Also, students' perceptions of *internationalization* in HEIs in other EU countries (*M*=4.17, *SD*=0.755) was significantly higher than in HEIs in Latvia (*M*=3.44, *SD*=0.683), *t* (223) = -12.213, *p*<0.01. Moreover, students' perceptions of *student life* was significantly higher for HEIs in other EU countries compared to HEIs in Latvia.

The third concept examined was HE Outcomes, consisting of two variables – *labour market relevance* and *HE prestige.* Students' perceptions of *labour market relevance* of HE in other EU countries (*M*=4.29, *SD*=0.669) was significantly higher than in Latvia (*M*=3.71, *SD*=0.828), *t* (222) = -10.203, *p*<0.01. Finally, students also reported a significantly higher perception of *HE prestige* in other EU countries (*M*=4.37, *SD*=0.672) than in Latvia (*M*=2.76, *SD*=0.810), *t* (223) = -22.507, *p*<0.01.

These results suggest that Latvian students generally perceive HE Quality and HE Outcomes to be better in other EU countries, while HE Access, specifically, *available information* is perceived as better in Latvia. The obtained results do not show significant differences in students' perceptions regarding *financial assistance.* These outcomes allow to reject null hypothesis for *H1-1, H1-3, H1-4, H1-5, H1-6, H1-7, H1-8* and accept the null hypothesis for *H1-2.*

Multiple regression analysis was used to test the second hypothesis. The H_1 of second hypothesis stated that students' perceptions of HE in Latvia and other EU countries is likely to influence the extent to which they intend to pursue HE in other EU countries within 1 to 2 years. Students' intentions to study in other EU countries within 1 to 2 years was the dependent variable while 16 index variables related to student perception of HE in Latvia and other EU were independent variables. Additionally, five control variables were included in regression analysis containing demographic information. These variables were gender, first language in family, urban/rural school, mother's highest completed education and father's highest completed education (see table 10 below).

The results of regression analysis indicated that only two out of 16 variables predicted the extent to which students intended to study in other EU countries. These two variables explained 23.2% of variance (R^2=.232, F(21,189)=2.715, p<.001). It was found that *Information Availability in other EU countries* (β=.198, p<.05) and *Teaching Methods in other EU countries* (β=.250, p<.05) significantly predicted students' intentions to study in other EU countries within the next 1 to 2 years. Moreover, none of the five control variables had significant impact on the dependent variable. Additionally, the assumption that errors in the regression analysis were independent was satisfied as the Durbin-Watson statistic was between 1 and 3 (2.184) (Field, 2005).

These results suggested that null hypothesis should be accepted for H2-1 and H2-2. Hypothesis H2-1 proposed that "**positive perception of HE** access, quality and outcomes **in Latvia** has a **negative influence** on students' **intentions** to pursue their studies in other EU countries". Although most coefficients were indeed negative (*information availability, financial assistance, teaching methods, international environment, student life, labour market relevance*), the impact on the dependent variable was not significant and the null hypothesis could not be rejected. Hypothesis H2-2 stated that a "**positive perception of HE** access, quality and outcomes **in other EU** countries has **a positive influence** on students' **intentions** to pursue their studies in other EU countries." Six out of eight variables indeed had positive coefficients, but only two of them were significant. Thus,

null hypothesis for H2-1 nor H2-2 was not rejected.

Table 13: An overview of regression analysis to test Hypothesis II

	B	**SE**	**β**
(Constant)	2.145	.999	
HE Access LV			
information availability in Latvia	-.337	.182	-.166
financial assistance in Latvia	-.034	.157	-.017
HE Quality LV			
teaching methods in Latvia	-.180	.183	-.090
international environment in Latvia	-.287	.178	-.146
learning outcomes in Latvia	.004	.172	.002
student life in Latvia	-.136	.165	-.072
HE Outcomes LV			
labour market relevance in Latvia	-.017	.153	-.011
HE prestige in Latvia	.020	.144	.012
HE Access EU			
HE Access, information availability in other EU countries	.303	.133	**.198***
HE Access, financial assistance in other EU countries	.160	.189	.070
HE Quality EU			
HE Quality, teaching methods in other EU countries	.479	.204	**.250***
HE Quality, international environment in other EU countries	.008	.185	.005
HE Quality, learning outcomes in other EU countries	.046	.225	.023
HE Quality, student life in other EU countries	-.146	.206	-.081
HE Outcomes EU			
HE Outcomes, labour market relevance in other EU countries	.149	.192	.075
HE Outcomes, HE prestige in other EU countries	-.061	.170	-.031
Gender	-.124	.180	-.046
First language in Family	-.432	.315	-.093
Urban/rural School	-.070	.386	-.013
Mother's highest completed education	.134	.103	.108
Father's Highest completed education	.082	.090	.076
DV: "I intend to start higher education in other EU countries (besides Latvia) after completing high school within 1 to 2 years."			
**p<.05; R^2=.232*			

5. DISCUSSION

5.1 DISCUSSION & POLICY IMPLICATIONS

Results obtained in this research need to be interpreted with caution as statistical tests used in this research provide insights about mean differences(H1) and correlations between independent and dependent variables(H-2). These outcomes do not imply causation. Nonetheless, obtained results provide food for thought and can spark an interesting discussion.

The first research question aimed to understand *"to what extent do Latvian final year high school students perceive HE access, quality and outcomes in Latvia as significantly different when compared to other EU countries".* Essentially, students reported perceiving HE Quality (*learning outcomes, teaching methods, internationalization, student life*) and HE Outcomes (*labour market relevance, HE reputation*) as significantly better in other EU countries for all variables when compared to Latvia. With regard to HE Access, results indicated that student view *information availability* as better in Latvia while they perceive *financial assistance* on roughly the same for Latvia and other EU countries with no significant differences found.

The positive perception on *information availability* in Latvia (M=3.94, SD=.657) might indicate that students are more familiar with the system at home when compared to other EU countries (M=3.64, SD=.893). This is not surprising since most Latvian students have been directly or indirectly surrounded with formal and informal channels about Latvian HE system over their lifetime. Large majority of parents and teachers have pursued their education in Latvia and can help them with further search and advice. According to Bourdieu (1986), this would symbolize a certain level of social and cultural capital that students have acquired while living in Latvia. Also, the Student Union of Latvia (LSA) actively organizes online campaigns about HE in Latvia and distributes relevant materials to explain application process in a user-friendly manner (LSA, 2018). In contrast, to seek out information about other EU countries, student need to take initiative and either start their search online or attend exhibitions.

Additionally, insights obtained in the focus groups on *information availability* suggested that students feel confident that they can find information about study programs and HE systems both in Latvia and other EU countries, but are less confident in their ability to anticipate professions needed in the labour market or expected salary in different professions. Interestingly, after further research I discovered that a government agency has developed a website listing different professions, working conditions and potential employers. This website, called profesijupasalue.lv [the world of professions.lv], has been available online at least since 2014 (VIAA, 2014). The Latvian government might consider increasing awareness of this website and adding information on anticipated high demand professions to support students in their decision making process.

Students perceive *financial assistance* as roughly the same in Latvia (M=2.91, SD=.636) and the other EU countries (M=2.89, SD=.530). Yet this variable received the lowest score among all EU variables and the second lowest score among variables related to Latvia. Only *HE prestige* in Latvia received a lower score. These findings might demonstrate that students regarded financial assistance both in Latvia and in other EU countries as insufficient. Also, discussions in focus groups revealed that students' study choices are heavily influenced by the possibility to obtain state-subsidized study places. At times, this might lead to a behaviour that is harmful both to the state (lost resources) and to students (lost time) (e.g. students applying for STEM fields without sufficient background).

In 2014, the World Bank conducted a study on HE financing in Latvia and proposed a more inclusive, needs based financing for students rather than a merit based state-financed study place model (World Bank Reimbursable Advisory Service on Higher Education Financing in Latvia, 2014c). This approach has not been adopted yet. Hence, many students are willing to select study programs that offer free-tuition even if it is not aligned with their interests. The Latvian state should be aware of this phenomenon and develop policies that provide sound *financial assistance* to foster inclusiveness. Optimally these policies would also encourage students to pursue study programs and professions that are both interesting and demanded in labour market.

One of the potential implication of these findings is that if HE Access in other countries, both in terms of *available information* as well as *financial assistance* improve, Latvian students might be even more likely to study abroad as they already consider HE Quality and HE Outcomes to be better in other EU countries.

Furthermore, students perceive HE Quality in other EU countries as significantly better than in Latvia on all four variables. This was the case for more academic variables such as *learning outcomes, teaching methods,* and *internationalization* as well as student cantered variables such as *student life.* The results suggest that students consider *teaching methods* used in Latvia (M= 3.70, SD=.736) to be inferior to those used in other EU countries (M= 4.25, SD=.660). While these students have not actually studied in Latvian HEIs, their perception of teaching methods is alarming. First, the government should reflect whether it is necessary to improve teaching methods or perhaps communicating quality standards is sufficient. It is likely that both are needed. If teaching methods can be further improved and changes communicated properly, more students with intentions to study in other EU countries might choose to study in Latvia instead. Also, students reported perceiving *learning outcomes* in Latvian HEIs(M= 3.70, SD=.736) as less good than in other EU countries(M= 4.25, SD=.660). This indicator is likely to be related to *teaching methods.* As Gibbs suggested (2010), student engagement is one of the best indicators of educational gain or learning outcomes. Student engagement depends on small number of process variables tightly connected with selected teaching methods.

Students perceive *internationalization* in other EU countries (M=4.17, SD=.755) as significantly better than in Latvia (M=3.44, SD=.683). Recently though, internationalization of programs in Latvia has improved. In 2017 international students accounted for 10% of total student population (Ministry of Education and Science, 2017), well above the OECD average of 6% (last reported in 2015) (OECD, 2017). Yet, most international students are enrolled in a small number of English taught programs such as medicine at Riga Stradins University (RSU) where nearly 25% of students have foreign background. Around 43% of these students come from Germany, where admissions procedures for medical studies are very competitive (Auers, 2016). Thus, if the admissions

policies in Germany change, Latvia risks losing substantial number of international students. Since because studies in Latvia are considerably more expensive than in Germany (MasterPortal, 2018), this likelihood is particularly high.

The results indicated that Latvian students think that *student life* in other EU countries (M=4.16, SD=.726) is better than in Latvia (M=3.52, SD=.728). Most Latvian HEIs are scattered around the city, and campus universities are not common. This has already been identified as one of the potential points of improvement for attracting more international students (Auers, 2016). Further analysis reveal that indeed out of six dimensions for variable *student life* in Latvia, the lowest scoring item inquired students about having good campus life experience (M=2.90). These results suggest that to increase the appeal of HE among Latvian students, the government might consider investing in developing campus universities.

Also, HE Outcomes are regarded as better in other EU countries. In fact, *HE prestige* is a variable with highest difference in mean values between Latvia (M=2.76, SD=.810) and other EU countries (M=4.37, SD=.672). This suggests that perceived reputation of a degree obtained in Latvia is considerably lower than one obtained in other EU countries. This variable consists of four dimensions, asking students how they think a higher education credential obtained in Latvia/other EU countries will be valued by Latvian and EU employers and HEIs (e.g. admitting students in graduate degrees), and how Latvian/other EU HEIs rank in international rankings. Most students think that local and international employers and HEIs will not value a higher education credentials obtained in Latvia as much as those obtained in other EU countries. Also, they do not perceive Latvian HEIs as competitive in international rankings. Indeed, none of the Latvian universities appear in the top 700 in QS rankings (QS World University Rankings, 2019).

Latvian government should consider multiple strategies for improving students' perception on *HE prestige.* Improving positions of universities on international rankings is not an easy task and usually requires considerable time, effort and a clear strategy. The same goes for changing employer perceptions and perceptions of other HEIs. Specializing

and enhancing quality in a few areas could be the most effective approach in short to medium term. In fact, after further research I noticed that in 2014 *Smart Specialisation Strategy* for economic transformation in Latvia was developed to ensure that public R&D investment is directed towards higher added value activities and more efficient use of resources. As part of the plan, seven key priorities were identified (Ministry of Foreign Affairs, 2014). Integrating these specialisations into higher education might lead to further synergies, and enhance *HE reputation* in these areas.

Additionally, *labour market relevance* is regarded as better in other EU countries than in Latvia. This is not surprising since economic situation in more developed EU countries on average is better. The insights from focus groups revealed that students are often expected to have work experience upon completion of their studies. The government might suggest that new study programs would show some relevance to labour markets either in terms of skills or knowledge acquired. Furthermore, it could support students by incentivizing employers to recruit students either for part-time positions or throughout the summer breaks.

The second research question investigated *"to what extent do perceptions of HE access, quality and outcomes in Latvia and other EU countries influence students' intentions to pursue their studies in other EU countries"*. It is important to note that insights obtained in the focus group revealed that many students make their final choices regarding study destination only after obtaining the results regarding state-financed study places. The results of the regression analysis indicated that there are two significant predictors - *information availability* in other EU countries and *teaching methods* in other EU countries. Both predictors were positively correlated with students' intention to study in other EU countries.

Nonetheless, *information availability*, in particular, should be interpreted with caution. Students with stronger intentions to study in other EU countries, most likely had started collecting information about the opportunities early on and thus where more knowledgeable about *available information*. *Teaching methods*, are likely to be a

significant predictor of student intention to study abroad. A potential implication might be that perception of *teaching methods* is one of the most important factors that affect student intention to study in other EU countries. Thus, Latvian government might consider focusing on one area that seems to matter to those who intend to study in other EU countries. As suggested before, the government should reflect whether it is necessary to improve teaching methods or perhaps communicating quality standards is enough. Based on that appropriate actions should be taken. Interestingly, neither *HE reputation* nor *labour market relevance* had significant impact on students' intention to study in other EU countries.

With regard to theory discussed in the literature review, the findings are rather consistent with previous research. Two theories were reviewed in the section on HE Access – Bourdieu's Theory of Practice (1977) and Härnqvist's model of educational choice (1978). Some of the insights obtained in focus groups hinted towards social class reproduction in society. For example, as FG_3 suggested, students in better schools end up performing better in centralized exams and are more likely to qualify for state-subsidized study places. Moreover, FG_1 suggested that in order to qualify for a "dream job" one must obtain experience, skills and competencies before completing tertiary studies or otherwise be well-connected. These comments point to symbolic capital needed to succeed. Härnqvist's educational model highlights the importance of institutional factors actively discussed in the focus groups such as financial assistance (FG1, FG_2, FG_3 in 6.1, 6.2, 6.3) admissions process (FG_1, FG_2, FG_3 in 5.1, 5.2, 5.3) and organizational guidance (FG_1, FG_2, in 2.1, 2.2, 3.1 ,3.2).

When discussing HE quality, Gibbs (2010) emphasized the importance of educational gain, which is directly linked to *learning outcomes* variable and indirectly to *teaching methods*, which affect educational gain. The results obtained in paired-samples T-tests indicate that students perceive both variables to be better in other EU countries. Furthermore, regression analysis show that *teaching methods* in other EU countries is one of the factors positively correlated with student intentions to study in other EU countries. This might indicate that students expect to obtain higher educational gain in other EU countries.

I reviewed human capital theory, signalling theory and credentialism when discussing HE Outcomes. Students might reason that education in other EU countries provides higher increase in their productivity (human capital theory) and offers better signalling power and credentials to compete in the labour market afterwards. Eventually HE obtained in other EU countries result in increased *HE prestige* and *labour market relevance*. This might be particularly relevant for EU context, where Bologna process, complemented with NPM principles, has led to considerable standardization of systems, making comparisons more straightforward in policy papers and international rankings (Broucker, 2015). Although in this research *HE reputation* and *labour market relevance* were not significant predictors for student intentions to study in other EU countries, they had significantly higher mean values.

As discussed in the Chapter 1.3 - theoretical framework, the top three pull factors found in the literature review were "academic reputation", "career opportunities" and "financial considerations". All three variables were included in the regression model as *HE prestige, labour market relevance* and *financial assistance*. However, none of these variables were found to be significant predictors of students' intentions to study in other EU countries.

5.3 RESEARCH LIMITATIONS

The intention of this research was to explore Latvian student perceptions about HE in Latvia and other EU countries. Given the specific context, the findings are unlikely to be generalizable to a wider context. However, it might provide insights for other new EU member states. The idea for this research originated from observing that in the last decade the number of students in Latvian HEIs have dropped by more than 35% (CSB, 2017). Particular attention was paid to EU membership, which Latvia gained in 2004. It provided Latvian citizens with rights to freely move within the EU and obtain education in other EU countries while paying local fees. As of 2004, another 13 states have joined the EU, setting the total number of states to 28 (the number is expected to change to 27 once the UK leaves the EU). The expansion has been considerable in a relatively brief period.

Emigration and loss of human capital are challenges than many new EU member states face. A comparable situation has been observed in other two Baltic states (Auers, 2016; Chankseliani & Hessel, 2016). Thus, although this research cannot be generalized to all contexts, it can provide some insights to current challenges present in more than one of the new EU member states.

Regarding research design, several adjustments could be made when designing similar future studies. As this was an exploratory study with an intention to provide operational policy recommendations, a large number of survey items were included, later aggregated into composite indicators. In total, each student responded to more than 100 survey items. However, in future studies, the number of survey items should be reduced proportionally to number of participants undertaking the survey. This would not only allow researchers to perform Cronbach's alpha reliability analyses, but also run factor analyses to better identify latent variables (composite indicators in this research). While the Cronbach's alpha test gives a good indication of internal consistency, it does not ensure unidimensionality (Tavakol & Dennick, 2011). Thus, future researchers might consider reducing the number of items used for the survey, increasing the sample size or both. A rule of thumb in academia is to have at least 10 participants for each variable included up to 300 cases, with some researchers suggesting 15 cases or more. Beyond 300 cases test parameters tend to be stable regardless of the ratio (Field, 2005).

Also, the dependent variable selected stated "I intend to study in other EU countries within next 1to 2 years". While the intention was to make this statement easy to grasp and limited to sufficiently short time period, this was not fully attained. Focus group discussions revealed that many students make their final choice regarding the study destination only towards the middle of summer while the research was conducted in spring. Thus, while this dependent variable might reflect student intentions at the time of completing the survey, the actual actions taken might differ significantly based on the allocation of state-subsidized study places. Future research might consider conducting research after students have received offers for state subsidized study places and include this as a mediating variable.

Additionally, it is important to note that using composite indicators is a widely discussed topic. On the one hand, some researchers, particularly in the field of psychology, see composite indicators as more reliable, valid and reliable way of measuring latent variables (Gliem & Gliem, 2003; Nunnally & Bernstein, 1994; McIver & Carmines, 1981; Spector, 1992). Moreover, these indicators are often used in international rankings (e.g. QS, THE) or policy analysis since they allow for structuring substantial amounts of information and make it easier to comprehend for the reader. The indicators can show progress over time and reduce the number of indicators without omitting the information thus supporting decision-makers. On the other hand, such indicators can be misleading if poorly constructed. Selection of indicators and weights are widely discussed and at times these indicators might oversimplify results that are more complex (OECD & JRC, 2008; Leiden Ranking, 2018). Thus, in future research, academics might further explore composite indicators, potentially applying factor analysis and considering weighted methods. The selected approach should be methodologically sound and, if possible, aligned with the chosen theory.

Finally, efficiency of data processing should be improved in future research by opting for digital rather than pen-and-paper surveys. This research was conducted in spring, only a few months before the final high school exams. Given the high pressure of these exams, obtaining participants for this research was a challenge. Not all schools had readily available computer facilities and rescheduling of rooms was difficult. Moreover, the survey was too long to be filled on a smartphone. It was also anticipated that the non-response rate would be higher for digital surveys. In total, four schools participated in digital surveys while five opted for in-class surveys. While converting digital surveys to the format needed for SPSS required less than an hour, manually entering records from pen-and-paper surveys took several weeks. As expected, the non-response rate was higher for digital surveys which varied between 49 and 100%, while response rate was 100% for all pen-and-paper surveys (see table 4). Academics attempting to do a similar research should utilize digital survey tools while attempting to increase participation rate.

6. CONCLUSION

6.1 CONCLUSION

The purpose of this thesis was twofold. First, it explored how Latvian high school students perceive higher education in Latvia and other EU countries, particularly HE Access, HE Quality and HE Outcomes. Afterwards, the thesis examined to what extent students' perceptions influence their intentions to study in other EU countries. It is important to note that when evaluating HE in other EU countries, students were asked to refer to 3 to 5 EU countries they would consider as their potential study destinations.

To compare students' perception on HE Access, HE Quality and HE Outcomes, the three concepts were operationalized into eight variables. HE Access was split into *information availability* and *financial assistance*, HE Quality in *learning outcomes, teaching methods, internationalizations,* and *student life* while the concept on HE Outcomes was divided into *labour market relevance* and *HE reputation*. To compare these eight variables for Latvia and other EU countries, paired samples T-tests were used. The results suggested that final year high school students in Latvia perceive HQ Quality and HE Outcomes in other EU countries as significantly better than in Latvia on all variables *(teaching methods, learning outcomes, internationalization, student life for HE Quality and labour market relevance, HE reputation for HE Outcomes).* Yet, the results on HE access were mixed. Students perceived *available information* as better in Latvia while results for *financial assistance* did not show significant differences. The variables with the lowest scores for Latvia were HE *reputation(M=2.76)* and *financial assistance (M=2.91)* while for the other EU countries those were *financial assistance(M=2.89)* and *available information(M=3.64).*

One of the potential implication of these findings is that if HE Access in other EU countries improve, both in terms of *available information* as well as *financial assistance*, Latvian students might be even more likely to study in other EU countries. To mitigate this risk, Latvian government should consider evaluating current HE Quality and HE Outcomes, and decide upon which dimensions they should improve. Since *HE reputation* and *financial assistance* in Latvia received the lowest scores, these might be high potential areas to explore.

To examine how the eight operationalized variables for Latvia and other EU countries influence student intention to study in other EU countries, regression analysis was used. The obtained results revealed that only 2 out of 16 independent variables had a significant, positive impact on the dependent variable. These variables were *information availability* in other EU countries (β=.198, $p<.05$) and *teaching methods* in other EU countries (β=.250, $p<.05$). The two variables explained 23.2% of variance in the model ($R2$=.232, $F(21,189)=2.715$, $p<.001$). None of the moderating variables had a significant effect on the dependent variable.

These results provide relevant insights about areas worth improving. Yet, *information availability* about other EU countries, in particular, should be interpreted with caution. It is possible that students who planned to study in other EU countries, had started collecting information about the opportunities abroad early. Thus, these students naturally were better informed about possibilities in these countries. *Teaching methods*, are likely to be a significant predictor of students' intention to study in other EU countries. Thus, a potential recommendation for the government would be to focus on one area that seems to matter to those who intend to study in other EU countries. To begin with, the government should reflect whether it is necessary to improve teaching methods or perhaps communicating quality standards is enough. It is likely that both are needed. If teaching methods can be further improved and changes communicated properly, more students with intentions to study in other EU countries might choose to study in Latvia instead. This said, other aspects such as financial assistance and student life, should not be neglected, but it is important to set the priorities. Improving students' perception of HE system is a difficult task that requires time and effort. Yet it might be the only way forward for a country that must heavily rely on human capital for its economic development and well-being..

REFERENCES

Ahmad, S. Z., & Hussain, M. (2017a). An investigation of the factors determining student destination choice for higher education in the United Arab Emirates. *Studies in Higher Education*, 324–1343.

Ahmad, S. Z., & Hussain, M. (2017b). The analytic hierarchy process of the decisionmaking factors of African students in obtaining higher education in the United Arab Emirates. *Compare: A Journal of Comparative and International Education, 47*(2), 163-176.

Altbach, P. G. (2004). Higher Education Crosses Borders: Can the United States Remain the Top Destination for Foreign Students? *Change: The Magazine of Higher Learning*, 18-25.

Altbach, P. G., & Knight, J. (2007). The Internationalization of Higher Education: Motivations and Realities. *Journal of Studies in International Education*, 290-305.

Anderson, G. (2006). Assuring Quality/Resisting Quality Assurance: Academics' Responses to 'Quality' in Some Australian Universities. *Quality in Higher Education, 12*(2), 161-173.

Anderson, G. (2008). Mapping Academic Resistance in the Managerial University. *Organization, 15*(2), 251–270.

Andres, L. (1992). *Paths on life's way : destinations, determinants, and decisions in the transition from high school (T).* Retrieved from Open Library UBC: https://open.library.ubc.ca/collections/ubctheses/831/items/1.0055770

Andres, L. (2012). *Designing & Doing Survey Research.* 55 City Road: SAGE Publications, Ltd.

Aquino, R. S., Schänzel, H. A., & Hyde, K. F. (2017). Analysing Push and Pull Motives for Volcano Tourism at Mount Pinatubo, Philippines. *Geoheritage*, 1-15.

Auers, D. (2016). *The Higher Education Export Sector in Latvia: High Growth, High Potential.* Riga: Certus Policy Think Tank.

Baruch, Y., & Holtom, B. C. (2008). Survey response rate levels and trends in organizational research. *Human Relations, 61*(8), 1139–1160.

Becker, G. S. (1962). Investment in Human Capital: A Theoretical Analysis. *The University of Chicago Press*, 9-49.

Becker, R., & Kolster, R. (2012). *International student recruitment: policies and developments in selected countries.* Nuffic.

Beerkens, M. (2018). Evidence-based policy and higher education quality assurance: progress, pitfalls, and promise. *European Journal of Higher Education, 8*(3), 272-287. doi:10.1080/21568235.2018.1475248

Beine, M., Docquier, F., & Rapoport, H. (2001). Brain drain and economic growth: Theory and evidence. *Journal of Development Economics*, 275–289.

Belman, D., & Heywood, J. S. (1991). Sheepskin Effects in the Returns to Education: An Examination of Women and Minorities. *The Review of Economics and Statistics, 73*(4), 720-724.

Bidner, C. (2014). A spillover-based theory of credentialism. *The Canadian Journal of Economics*, 1387-1425.

Biggs, J. B. (1993). From theory to practice: A cognitive systems approach. *Higher education research and development, 12*(1), 73-85.

Bills, D. B. (2003). Credentials, Signals, and Screens: Explaining the Relationship Between Schooling and Job Assignment. *Review of Educational Research, 73*(4), 441- 469.

Black, P., & Wiliam, D. .. (1998). Assessment and classroom learning. *Assessment in Education*, 7–74.

Bostwick, V. (2016, July). Signaling in Higher Education: The effect of access to ellite colleges on choice of major. *Economic Inquiry, 54*(3), 1383–1401.

Bound, J., & Turner, S. (2005). Cohort crowding: how resources affect collegiate attainment. *Journal of Public Economics, 91*(5-6), 877-899.

Bourdieu, P. (1977). *Outline of a Theory of Practice (Cambridge Studies in Social and Cultural Anthropology).* (R. Nice, Trans.) Cambridge: Cambridge University Press.

Bourdieu, P. (1986). The forms of capital. In J. C. Richardson, *Handbook of theory and research for the sociology of education* (R. Nice, Trans., pp. 241-258). New York: Greenwood Press.

Bourdieu, P., & Passeron, J. C. (1990). *Reproduction in Education, Society and Culture.*

Bourdieu, P., & Passeron, J.-C. (1979). *The inheritors.* (R. Nice, Trans.) Chicago: University of Chicago Press.

Broucker, B. a. (2015). New Public Management in Higher Education. In J. Huisman, H. d. Boer, D. D. Dill, & M. Souto-Otero, *The Palgrave International Handbook of Higher Education Policy and Governance* (pp. 57–75). New York:: Palgrave Macmillan.

Campbell, D. T., & Fiske, D. W. (1959). Convergent and discriminant validation by the multitrait-multimethod matrix. *Psychological Bulletin, 56*(2), 81-105.

Central Statistics Bureau. (2018, May 3). *Central Statistics Bureau Database: IZG26. Higher education institutions: studies funded by state budget/ for a fee*. Retrieved July 18, 2018, from Central Statistics Bureau Database:: http://data.csb.gov.lv/pxweb/en/Sociala/Sociala__ikgad__izgl/IZ0260.px/table/tableViewLayout2/?rxid=a79839fe-11ba-4ecd-8cc3-4035692c5fc8

Chankseliani, M., & Hessel, G. (2016). *International student mobility from Russia, Eastern Europe, Caucasus, and Central Asia to the UK: trends, institutional rationales and strategies for student recruitment.* Oxford: The Centre for Comparative and International Education, University of Oxford.

Chatterjee, S., & Hadi, A. S. (2013). *Regression Analysis by Example.* John Wiley & Sons.

Chen, J. M. (2017). Three Levels of Push-Pull Dynamics Among Chinese International Students' Decision to Study Abroad in the Canadian Context. *Journal of International Students*, 113-135.

Chen, L. H. (2007). East-Asian Students Choice of Canadian Graduate Schools. *International Journal of Educational Advancement*, 271-306.

Chen, L.-H. (2007). Choosing Canadian graduate schools from afar: East Asian students' perspectives . *High Educ*, 759–780.

Chiswick, B. R. (1973). Schooling, Screening, and Income. In Lewis C. Solmon and Paul J. Taubman (eds.), *Does College Matter.* New York: Academic Press.

Cho, E. (. (2016). Making reliability reliable: a systematic approach to reliability coefficients. *Organizational Research Methods, 19*(4), 651-682.
Collins, R. (1979). *The credential society: An historical sociology of education and stratification.* Academic Pr.
Collins, R. (2011). Credential Inflation and the Future of Universities. *Italian Journal of Sociology of Education*, 228-251.
Creswell, J. W. (2009). *Research Design Qualitative Quantitative and Mixed Methods Approach Third Edition.* Los Angeles: Sage Publications.
Cronbach, L. J. (1951). Coefficient alpha and the internal structure of tests. *Psychometrika, 16*(3), 297-334.
CSB. (2013). *Demography 2012 Collection of Statistical Data.* Riga: Central Statistical Bureau of Latvia.
CSB. (2014). *Demography 2014 Collection of Statistical Data.* Riga: Central Statistical Bureau of Latvia.
CSB. (2015). *Demography 2015 Collection of Statistical Data.* Central Statistical Bureau of Latvia.
CSB. (2016). *Demography 2016 Collection of Statistics.* Riga: Central Statistics Bureau of Latvia.
CSB. (2017). *Demography 2017 Collection of Statistics.* Riga: Central Statistical Bureau of Latvia.
CSB. (2017, March 3). *http://data.csb.gov.lv/pxweb/en/Sociala/Sociala__ikgad__izgl/IZ0260.px/table/tableViewLayout2/?rxid=a79839fe-11ba-4ecd-8cc3-4035692c5fc8*. Retrieved January 24, 2018, from http://data.csb.gov.lv/: http://data.csb.gov.lv/pxweb/en/Sociala/Sociala__ikgad__izgl/IZ0260.px/table/tableViewLayout2/?rxid=a79839fe-11ba-4ecd-8cc3-4035692c5fc8
Damen, M.-L., & Hamberg, S. (2015). *Studiebarometeret 2014: What explains students' overall satisfaction? A review of the main findings of the 2014 Norwegian national student survey.* NOKUT.
De Wit, H. (2018, July 6). The new dynamics in international student circulation. *University World News*.
Dedze, I., & Rubene, Z. (2016). Universities in Latvia – from the Soviet to European Higher Education Area. *Foro de Educación, 14*(21), 13-38.
Denzin, N. K. (1978). *Research act: A theoretical introduction to sociological methods.* New York: McGraw-Hill.
EC. (2014). *Did you know? 10 EU rights at a glance.* Brussels: Luxembourg: Publications Office of the European Union.
Elassy, N. (2015). The concepts of quality, quality assurance and quality enhancement. *Quality Assurance in Education, 23*(3), 250-261.
Enders, J., & Westerheijden, D. F. (2014). Quality Assurance in the European Policy Arena. *Policy and Society, 33*(3), 167–176.
EU. (2011). *Your rights as a mobile student A Guide to the Rights of Mobile Students in the European Union.* Luxembourg: Publications Offi ce of the European Union.
European Migration Network. (2012). *Izpētes darbs Ārvalstu studentu imigrācija Latvijā (Research report on foreign student migration to Latvia).* Riga: European Migration Network.

European Parliament. (2015). *Internationalization of Higher Education study.* Policy Department B: Structural and Cohesion Policie. Brussels: European Parliament.
Fearnley, S. (1995). Class size: the erosive effect of recruitment numbers on performance. *Quality in Higher Education., 1*(1), 59-65.
Field, A. (2005). *Discovering Statistics Using SPSS* (2nd Edition ed.). London: Sage Publications.
Field, A. (2013). *Discovering Statistics using SPSS* (4th Edition ed.). London: SAGE.
Fricker, R. D., & Schonlau, M. (2002). Advantages and disadvantages of Internet research surveys: Evidence from the literature. *Field methods, 14*(4), 347-367.
Garibaldi, P. (2006). *Personnel economics in imperfect labor markets.* Oxford, England: Oxford Press.
George, D., & Mallery, P. (2003). *SPSS for Windows step by step: A simple guide and reference 11.0 update (4th ed.).* Boston: Allyn & Bacon.
Gibbs, G. (2010). Dimensions of quality. *Higher Education Academy*.
Gibbs, P. (2011). Finding quality in 'being good enough' conversations. *Quality in Higher*, 139-150.
Gliem, J. A., & Gliem, R. R. (2003). Calculating, interpreting, and reporting Cronbach's alpha reliability coefficient for Likert-type scales. *Midwest Research-to-Practice Conference in Adult, Continuing, and Community Education*, (pp. 82-88). Columbus.
Goldin, C. (2014). Human Capital. In C. Diebolt, & M. Haupert, *Handbook of Cliometrics* (pp. 1-29). Springer-Verlag.
Group of eight. (2014). *Policy note: International students in higher education and their role in Australian economy.* Group of eight.
Ha, W., Yi, J., & Zhang, J. (2016). Brain drain, brain gain, and economic growth in China. *China Economic Review*, 322–337.
Härnqvist, K. (1978). *Individual demand for education, analytical report.* Paris: OECD Publications Center.
Harvey, L. (2016). Lessons Learned from Two Decades of Quality in Higher Education. Retrieved from https://www.qualityresearchinternational.com/Harvey2016Lessons.pdf.
Harvey, L., & Green, D. (1993). Defining Quality. *Assesment and Evaluation in Higher Education, 18*(1), 9-34.
Harvey, L., & Williams, J. (2010). Fifteen Years of Quality in Higher. *Quality in Higher Education, 16*(1), 3-36.
Harvey, L., & Williams, J. (2010). Fifteen Years of Quality in Higher Education (Part two). *Quality in Higher Education, 16*(2), 81-113.
Hattie, J., & Timperley, H. (2007). The power of feedback. *Review of Educational Research*, 81–112.
Hemsley-Brown, J. (2002). *Education Decision-Making under Scrutiny: The Impact of Local Government Modernisation.* National Foundation for Educational Research. Slough.
Hinkin, T. R., Tracey, J. B., & Enz, C. A. (1997). Scale construction: Developing reliable and valid measurement instruments. *Journal of Hospitality & Tourism Research, 21*(1), 100-120.
Hungerford, T., & Solon, G. (1987). Sheepskin Effects in the Returns to Education. *The Review of Economics and Statistics, 69*(1), 175-177.

Iacovidou, M., Gibbs, P., & Zopiatis, A. (2009). An exploratory use of the stakeholder approach to defining and measuring quality. *Quality in Higher Education*, 147-165.

ITA. (2016). *Education Top Markets Report.* U.S. Department of Commerce.

Jaeger, D. A., & Page, M. E. (1996). Degrees Matter: New Evidence on Sheepskin Effects in the Returns to Education. *The Review of Economics and Statistics*, 733-740.

KPMG. (2011). *Augstākās izglītības eksportspējas novērtējuma un rekomendāciju izstrādes gala ziņojums (The final report on higher education export capacity - evaluation and recomendations).* Riga: KPMG Baltics SIA.

Lee, C.-F. (2014). An investigation of factors determining the study abroad destination choice: A case study of Taiwan. *Journal of Studies in International Education, 18*(4), 362-381.

Lee, E. S. (1966). A Theory of Migration. *Demography*, *3*(1), 47–57.

Lee, S. W. (2017). Circulating East to East: Understanding the Push–Pull Factors of Chinese Students Studying in Korea. *Journal of Studies in International Education*, 170– 190.

Leiden Ranking. (2018). *Responsible Use: Leiden Ranking*. Retrieved from Leiden Ranking Web Site: http://www.leidenranking.com/information/responsibleuse

LH Martin Institute. (2011). *State of Current Research in International Education.*

Li, M., & Bray, M. (2007). Cross-border flows of students for higher education: Push–pull factors and motivations of mainland Chinese students in Hong Kong and Macau. *Higher Education*, 791–818.

Lindsay, R., & Paton-Saltzberg, R. (1987). Resource changes and academic performance. *Studies in Higher, 12*(2), 213–227.

Lomas, L. (2002). Does the development of mass education necessarily mean the end of quality? *Quality in Higher Education*, 71-79.

LSA. (2018). *Projekti: LSA*. Retrieved from LSA Web site: http://www.lsa.lv/projekti/

Maggio, R. (2017). *An Analysis of Pierre Bourdieu's Outline of a Theory of Practice.* London: Routledge.

Marton, F., & Wenestam, C. (1978). Qualitative differences in the understanding and retention of the main point in some texts based on the principle-example structure. In M. M. Gruneberg, P. E. Morris, & R. N. Sykes, *Practical aspects of memory*. London: Academic Press.

MasterPortal. (2018, January 9). *Tuition Fees at Universities in Europe in 2018 - Overview and Comparison: Master Portal*. Retrieved from Master Portal Web site: https://www.mastersportal.com/articles/405/tuition-fees-at-universities-in-europe-in-2018-overview-and-comparison.html

Mathison, S. (1988, March). Why Triangulate? *Educational Researcher, 17*(2), 13-17.

Mazzarol, T., & Soutar, G. N. (2002). The Push-Pull Factors Influencing International Student Selection of Education Destination. *International Journal of Educational Management*, 1-19.

McCarthy, E. E., Sen, A. K., & Garrity, B. F. (2012). Factors that influence Canadian students' choice of higher education institutions in the united states. *Business education & accreditation*, 85-95.

McIver, J. P., & Carmines, E. G. (1981). *Unidimensional scaling.* Thousand Oaks, CA: Sage.

McMahon, M. (1992). Higher Education in a World Market: An Historical Look at the Global Context of International Study. *Higher Education*, 465–482.
Mincer, J. (1958). Investment in Human Capital and Personal Income Distribution. *The University of Chicago Press*, 281-302.
Ministry of Education and Science. (2017). *Pārskats par Latvijas augstāko izglītību 2016.gadā (Overview of Latvian Higher Education in 2016).* Riga: Ministry of Education and Science.
Ministry of Education and Science. (2018). *Oficiālā statistika par vispārējo izglītību 2017./2018. m.g. [Official Statistics about secondary education in 2017/18 academic year].* Retrieved from Ministry of Education and Science: http://www.izm.gov.lv/lv/publikacijas-un-statistika/statistika-par-izglitibu/statistika-par-visparejo-izglitibu/2017-2018-mg
Ministry of Foreign Affairs. (2014, December 2). *http://www.mfa.gov.lv/en/policy/european-union/history/latvia-and-the-eu-chronology-of-relations*. Retrieved from http://www.mfa.gov.lv: http://www.mfa.gov.lv/en/policy/european-union/history/latvia-and-the-eu-chronology-of-relations
Ministry of Welfare of the Republic of Latvia. (2010). *Latvian Labour Market 2009-2010.* Riga: Ministry of Welfare of the Republic of Latvia.
Morgan, D. (1998). Practical strategies for combining qualitative and quantitative methods: Applications to health research. *Qualitative Health Research*, 362-376.
Murray, R. C. (1980). The Credential Society: An Historical Sociology of Education and Stratification by Randall Collins. *American Journal of Education, 88*(4), 488-495.
Nunnally, J. C., & Bernstein, I. H. (1994). *Psychometric theory* (3rd Edition ed.). New York: McGraw- Hill.
OECD & JRC. (2008). *Handbook on Constructing Composite Indicators: Methodology and user guide.* OECD.
OECD. (2012). *Assessment of Higher Education Learning Outcomes.* OECD Publishing .
OECD. (2013). *Education Indicators in Focus - How is International Student Mobility Shaping Up?* . OECD Publishing.
OECD. (2013). *Education Indicators in Focus - How is International Student Mobility Shaping Up?* OECD Publishing.
OECD. (2014a). *Education at a Glance 2014: OECD Indicators.* Paris: OECD Publishing.
OECD. (2014b). *Indicator A4: To what extent does parents' education influence participation in tertiary education?, in Education at a Glance 2014: OECD Indicators.* Paris: OECD Publishing.
OECD. (2015). *Education at a Glance 2015: OECD Indicators.* Paris: OECD Publishing.
OECD. (2016a). *Reviews of National Policies for Education Education in Latvia.* Paris: OECD Publishing.
OECD. (2017). *Education at a Glance 2017: OECD Indicators.* Paris: OECD Publishing.
OECD. (2017a). *Education Policy Outlook Latvia.* Paris: OECD Publishing.

OECD. (2018). *Adult education level (indicator)*. Retrieved September 15, 2018, from OECD Data Web site: https://data.oecd.org/eduatt/adult-education-level.htm#indicator-chart

OECD. (2018, January 24). *https://data.oecd.org/eduatt/graduation-rate.htm#indicator-chart*. Retrieved from data.oecd.org: https://data.oecd.org/eduatt/graduation-rate.htm#indicator-chart

OECD. (2018). *Population with tertiary education (indicator)*. Retrieved September 15, 2018, from OECD data Web site: https://data.oecd.org/eduatt/population-with-tertiary-education.htm#indicator-chart

Oxford University Press. (2018). *Dictionary - Credentialism*. Retrieved from Oxford Dictionaries Web site: https://en.oxforddictionaries.com/definition/credentialism

Pandis, N. (2016). *Multiple linear regression analysis.* Bern: the American Association of Orthodontists.

Parker, A., & Tritter, J. (2006, April). Focus group method and methodology: current practice and recent debate. *International Journal of Research & Method in Education, 29*(1), 23–37.

Pascarella, E. .. (2005). *How college affects students: a third decade of research* (Vol. 2). San Francisco: Jossey-Bass.

Pesonen, J., Komppula, R., Kronenberg, C., & Peters, M. (2011). Understanding the relationship between push and pull motivations in rural tourism. *Tourism Review, 66*(3), 32-49.

Power, E. M. (1999). An Introduction to Pierre Bourdieu's Key Theoretical Concepts. *Journal for the Study of Food and Society, 3*(1), 48-52.

Prisacariu, A., & Shah, M. (2016). Defining the quality of higher education around ethics and moral values. *Quality in Higher Education, 22*(2), 152-166. doi:10.1080/13538322.2016.1201931

Qiang, Z. (2003). Internationalization of higher education: Towards a conceptual framework. *Policy Futures in Education, 1*(2), 248-270.

QS. (2014). *Trends in International Student Mobility, A comperative study of international student choices,motivations and expectations 2009-2013.* TopUniversities.

QS World University Rankings. (2019). *QS World University Rankings*. Retrieved from QS World University Rankings: https://www.topuniversities.com/university-rankings/world-university-rankings/2019

Richardson, J. T. (2005). Instruments for obtaining student feedback: a review of the literature. *Assessment & Evaluation in Higher Education, 30*(4), 387-415.

Rietveld, T., & Hout, R. v. (2017). The paired t test and beyond: Recommendations for testing the central tendencies of two paired samples in research on speech, language and hearing pathology. *Journal of Communication Disorders*, 44-57.

Saarinen, T. (1995). Systematic higher education assessment and departmental impacts: Translating the effort. *Quality in Higher Education, 1*(3), 223-234.

Samuels, P. (2015). *Advice on Reliability Analysis with Small Samples.* Birmingham City University. ResearchGate.

Schultz, T. W. (1961). Investment in Human Capital,. *l. The American Economic Review, 51*(1), 1-17. Retrieved from Retrieved from http://www.jstor.org/stable/1818907

Sedgwick, P. (2014, April 9). Non-response bias versus response bias. *BMJ*.

Seyfried, M., & Pohlenz, P. (2018). Assessing quality assurance in higher education: quality managers' perceptions of effectiveness. *European Journal of Higher Education, 8*(3), 258-271. doi:10.1080/21568235.2018.1474777
Spector, P. (1992). *Summated rating scale construction.* Thousand Oaks, CA: Sage.
Spence, M. (1973). Job Market Signaling. *The Quarterly Journal of Economics, 87*(3), 355-374.
Stensaker, B. (2007). Impact of Quality Processes. In S. B. Lucien Bollaert, *Embedding Quality Culture in Higher Education. A Selection of Papers from the 1st European Quality Assurance Forum* (pp. 59–62). Brussels: European University Association.
Streiner, D. L. (2003). Starting at the Beginning: An Introduction to Coefficient Alpha and Internal Consistency. *Journal of Personality Assessment, 80*(1), 99-103.
Swartz, D. (1997). *Culture and power: The sociology of Pierre Bourdieu.* Chicago: The University of Chicago Press.
Tabachnick, B. G., & Fidell, L. S. (2012). *Using Multivariate Statistics* (6th Edition ed.). Boston: Pearson.
Tam, M. (2001). Measuring quality and performance in higher education. *Quality in Higher Education*, 152-166.
Tan, E. (2014). Human Capital Theory: A Holistic Criticism. *Review of Educational Research*, 411-445.
Tavakol, M., & Dennick, R. (2011). Making sense of Cronbach's alpha. *International journal of medical education, 2*, 53-55.
Tholen, G. (2017). Symbolic Closure: Towards a renewed sociological perspective on the relationship between higher education,credentials and the graduate labour market. *Sociology, 51*(5), 1067-1083.
UNDP. (2016). *Human Development Report 2016 Human Development for Everyone.* New York: UNDP.
Van Kemenade, E., Pupius, M., & Hardjono, T. W. (2008). More value to defining quality. *Quality in Higher Education, 14*(2), 175-185.
Van Teijlingen, E. R., & Hundley, V. (2001). *The importance of pilot studies.* University of Surrey, Department of Sociology. Guildford: Department of Sociology University of Surrey.
VIAA. (2014). *Karjeras Zinas [Career news]*. VIAA. VIAA.
Webb, E. J., Campbell, D. T., Schwartz, R. D., & Sechrest, L. (1966). *Unobtrusive measures.* Chicago: Rand McNally.
Weber, M. (1978 [1922]). *Economy and society: An outline of interpretive sociology* (Vol. I). Univ of California Press.
Weiss, A. (1995). Human Capital vs. Signalling Explanations of Wages. *Journal of Economic Perspect*, 133-154.
Weiss, Y. (2015). Gary Becker on Human Capital. *Journal of Demographic Economics*, 27–31.
Whyte, L. J. (2017). Understanding the relationship between push and pull motivational factors in cruise tourism: A canonical correlation analysis . *International Journal of Tourism Research, 19*(5), 557-568.
Wilkins, S., Balakrishnan, M. S., & Huisman, J. (2012). Student choice in higher education: Motivations for choosing to study at an international branch campus. *Journal of Studies in International Education, 16*(5), 413-433.

World Bank Reimbursable Advisory Service on Higher Education Financing in Latvia. (2014c). *Higher Education Financing in Latvia: Final Report.* Riga: World Bank Reimbursable Advisory Service on Higher Education Financing in Latvia.

Wright, K. B. (2005). Researching Internet-Based Populations: Advantages and Disadvantages of Online Survey Research, Online Questionnaire Authoring Software Packages, and Web Survey Services. *Journal of Computer-Mediated Communication, 10*(3), JCMC1034.

Xu, M., Fralick, D., Zheng, J. Z., Wang, B., Tu, X. M., & Feng, C. (2017). The differences and similarities between two-sample t-test and paired t-test. *Biostatistics in psychiatry, 29*(3), 184-188.

APPENDIX A: AN EXAMPLE SURVEY

YOUR OPINION ABOUT HIGHER EDUCATION IN LATVIA AND OTHER EU COUNTRIES

This is your last year in high school. I am conducting this research to understand how you perceive HE Access, HE Quality and HE Outcomes in Latvia and other EU countries. This research is anonymous yet I am happy to share the anonymized insights with you. Feel free to reach out to me at anete.veidemane@gmail.com to obtain the anonymized research results.

I recognize that HE systems and their quality varies considerably across the EU member states. Thus, while filling in the survey, please think about the EU countries that you would consider as your potential study destinations. Please list 3-5 EU member states in question 1, where you would like to pursue your tertiary education.

These are EU countries: Austria, Belgium, Bulgaria, Croatia, Republic of Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden and the UK.

(!) These are not EU countries: Iceland, Liechtenstein and Norway, Switzerland.

INTENTIONS TO START HE IN OTHER EU COUNTRIES

Which 3-5 EU countries besides Latvia would you consider for pursuing HE?					
Country:	1.	2.	3.	4.	5.

Intention to start HE in other EU countries					
	Disagree	Rather disagree	Neitehr agree nor disagree	Rather agree	Agree
I intend to start higher education in other EU countries(besides Latvia) after after completing highschool within 1-2 years	□	□	□	□	□

HE ACCESS IN LATVIA

In this section I will ask questions about information availability and financial assistance provided to start HE in **Latvia.**

Information Availability					
I know where to find information about…..	Disagree	Rather disagree	Neitehr agree nor disagree	Rather agree	Agree
… HE system in Latvia	☐	☐	☐	☐	☐
… admission requirements for study programs.	☐	☐	☐	☐	☐
… available study programs	☐	☐	☐	☐	☐
… program fees	☐	☐	☐	☐	☐
… program accreditation*	☐	☐	☐	☐	☐
… learning outcomes	☐	☐	☐	☐	☐
… career opportunities	☐	☐	☐	☐	☐
… approximate salary in my field of interest.	☐	☐	☐	☐	☐
… professions needed in the labour market in the near future (next 3-5 years)	☐	☐	☐	☐	☐

* Educational accreditation is a type of quality assurance process under which services and operations of educational institutions or programs are evaluated by an external body to determine if applicable standards are met. If standards are met, accredited status is granted by the appropriate agency.

Financial Considerations					
I believe that…	Disagree	Rather disagree	Neitehr agree nor disagree	Rather agree	Agree
…it is easy to qualify for state funded study places.	☐	☐	☐	☐	☐
…study fees are appropriate for the education provided.	☐	☐	☐	☐	☐
…student living expenses are acceptable.	☐	☐	☐	☐	☐
…it is easy to obtain a	☐	☐	☐	☐	☐

loan to cover study fees.					
…it is easy to obtain a loan to cover student living costs	□	□	□	□	□
… the loan covering study fees provides good terms.	□	□	□	□	□
…the loan covering student living expenses provides good terms.	□	□	□	□	□
…it is easy to combine studies with parttime job..	□	□	□	□	□
…the total study and living fees (for a student) are too high for an average Latvian family.	□	□	□	□	□

HE QUALITY IN LATVIA

In this section I will ask questions about learning outcomes, teaching methods, internationalization and student life in **Latvia.**

Teaching Methods					
I believe that…	Disagree	Rather disagree	Neitehr agree nor disagree	Rather agree	Agree
… study materials are revisd in accordance to current needs.	□	□	□	□	□
… professors are well prepared for lectures.	□	□	□	□	□
… teaching methods used in study process motivate students to actively engage in classroom activity	□	□	□	□	□
… teaching methods used in study process allow students to learn from each other (e.g. through group works)	□	□	□	□	□
… teaching methods used in study process stimulate	□	□	□	□	□

students to engage in in-depth individual learning.					
… students receing enough feedback on their work.	□	□	□	□	□
… technical equipment (e.g. computers, databases, equipment for laboratory work) is in good condition..	□	□	□	□	□

Learning outcomes					
I believe that HEIs……	Disagree	Rather disagree	Neitehr agree nor disagree	Rather agree	Agree
...enable students to acquire good academic knowledge..	□	□	□	□	□
… enable students to develop good critical thinking skills.	□	□	□	□	□
… enable students to develop ability to work well in a digital enviornment.	□	□	□	□	□
… enable students to develop good social skills (e.g. ability to wrok in groups, present material)	□	□	□	□	□

Internationalization					
I believe that…	Disagree	Rather disagree	Neitehr agree nor disagree	Rather agree	Agree
... HEIs offer sufficient number of study programs with international curriculum.	□	□	□	□	□
… HEIs has sufficient number of international professors and lecturers.	□	□	□	□	□
… HEIs has sufficient	□	□	□	□	□

number of international students..					
… HEIs offer sufficient number of student exchange opportunities.	□	□	□	□	□
… HEIs offer sufficient number of joint programs in collaboration with HEIs abroad.	□	□	□	□	□
... HEIs offer sufficient number of programs in foreign languages (e.g.english)	□	□	□	□	□

Student Life					
I believe that HEIs...	Disagree	Rather disagree	Neitehr agree nor disagree	Rather agree	Agree
… provide good enviornment to study and prepare for lectures (e.g. libraries, study corners).	□	□	□	□	□
.. provide good campus life experience..	□	□	□	□	□
… provide good student services (e.g. career center, study advisors, international office)	□	□	□	□	□
… provide enough social (cultural and entertainment) events.	□	□	□	□	□
… provide enough networking opportunities.	□	□	□	□	□
… provide enough extracurricular activities (e.g. seminars and conferences, student unions, sports activities)	□	□	□	□	□

HE OUTCOMES IN LATVIA

In this section I will ask questions about labour market outcomes and HE prestige in **Latvia.**

Labour market relevance					
I believe that obtaining HE would....	Disagree	Rather disagree	Neitehr agree nor disagree	Rather agree	Agree
… provide me with knowledge and skills to succsefully compete in the labour market.	☐	☐	☐	☐	☐
….help me to qualify for a job that corresponds to my expectations and interests.	☐	☐	☐	☐	☐
… help me to find a job in relevant industry within 6 months.	☐	☐	☐	☐	☐
… allow me to get a job that allows me to support myself.	☐	☐	☐	☐	☐
... benefit my career in a long term.	☐	☐	☐	☐	☐

HE prestige					
I believe that…	Disagree	Rather disagree	Neitehr agree nor disagree	Rather agree	Agree
… Latvian HE diploma is well recognised by Latvian employers.	☐	☐	☐	☐	☐
…. Latvian HE diploma is well recognised by foreign employers	☐	☐	☐	☐	☐
… Latvian HE diploma is well recognised by foreign HEIs (e.g. when admitting students for master's degree).	☐	☐	☐	☐	☐
… Latvian HEIs are highly ranked in international rankings.	☐	☐	☐	☐	☐

HE ACCESS IN OTHER EU COUNTRIES

In this section I will ask questions about information availability and financial assistance provided to start HE in **other EU countries.**

Information Availability					
I know where to find information about…..	Disagree	Rather disagree	Neitehr agree nor disagree	Rather agree	Agree
… HE system in other EU countries	☐	☐	☐	☐	☐
… admission requirements for study programs.	☐	☐	☐	☐	☐
… available study programs	☐	☐	☐	☐	☐
… program fees	☐	☐	☐	☐	☐
… program accreditation*	☐	☐	☐	☐	☐
… learning outcomes	☐	☐	☐	☐	☐
… career opportunities	☐	☐	☐	☐	☐
… approximate salary in my field of interest.	☐	☐	☐	☐	☐
… professions needed in the labour market in the near future (next 3-5 years)	☐	☐	☐	☐	☐

* Educational accreditation is a type of quality assurance process under which services and operations of educational institutions or programs are evaluated by an external body to determine if applicable standards are met. If standards are met, accredited status is granted by the appropriate agency.

Financial Considerations					
I believe that…	Disagree	Rather disagree	Neitehr agree nor disagree	Rather agree	Agree
…it is easy to qualify for state funded study places.	☐	☐	☐	☐	☐
…study fees are appropriate for the education provided.	☐	☐	☐	☐	☐
…student living expenses are acceptable.	☐	☐	☐	☐	☐
…it is easy to obtain a	☐	☐	☐	☐	☐

loan to cover study fees.					
…it is easy to obtain a loan to cover student living costs	□	□	□	□	□
… the loan covering study fees provides good terms.	□	□	□	□	□
…the loan covering student living expenses provides good terms.	□	□	□	□	□
…it is easy to combine studies with parttime job..	□	□	□	□	□
…the total study and living fees (for a student) are too high for an average Latvian family.	□	□	□	□	□

HE QUALITY OTHER EU COUNTRIES

In this section I will ask questions about learning outcomes, teaching methods, internationalization and student life in **other EU countries.**

Teaching Methods					
I believe that…	Disagree	Rather disagree	Neitehr agree nor disagree	Rather agree	Agree
… study materials are revisd in accordance to current needs.	□	□	□	□	□
… professors are well prepared for lectures.	□	□	□	□	□
… teaching methods used in study process motivate students to actively engage in classroom activity	□	□	□	□	□
… teaching methods used in study process allow students to learn from each other (e.g. through group works)	□	□	□	□	□
… teaching methods used in study process stimulate	□	□	□	□	□

students to engage in in-depth individual learning.					
… students receing enough feedback on their work.	□	□	□	□	□
… technical equipment (e.g. computers, databases, equipment for laboratory work) is in good condition..	□	□	□	□	□

Learning outcomes					
I believe that HEIs……	Disagree	Rather disagree	Neitehr agree nor disagree	Rather agree	Agree
...enable students to acquire good academic knowledge..	□	□	□	□	□
… enable students to develop good critical thinking skills.	□	□	□	□	□
… enable students to develop ability to work well in a digital enviornment.	□	□	□	□	□
… enable students to develop good social skills (e.g. ability to wrok in groups, present material)	□	□	□	□	□

Internationalization					
I believe that…	Disagree	Rather disagree	Neitehr agree nor disagree	Rather agree	Agree
... HEIs offer sufficient number of study programs with international curriculum.	□	□	□	□	□
… HEIs has sufficient number of international professors and lecturers.	□	□	□	□	□
… HEIs has sufficient	□	□	□	□	□

number of international students..					
… HEIs offer sufficient number of student exchange opportunities.	□	□	□	□	□
… HEIs offer sufficient number of joint programs in collaboration with HEIs abroad.	□	□	□	□	□
... HEIs offer sufficient number of programs in foreign languages (e.g.english)	□	□	□	□	□

Student Life					
I believe that HEIs...	Disagree	Rather disagree	Neitehr agree nor disagree	Rather agree	Agree
… provide good enviornment to study and prepare for lectures (e.g. libraries, study corners).	□	□	□	□	□
.. provide good campus life experience..	□	□	□	□	□
… provide good student services (e.g. career center, study advisors, international office)	□	□	□	□	□
… provide enough social (cultural and entertainment) events.	□	□	□	□	□
… provide enough networking opportunities.	□	□	□	□	□
… provide enough extracurricular activities (e.g. seminars and conferences, student unions, sports activities)	□	□	□	□	□

HE OUTCOMES IN OTHER EU COUNTRIES

In this section I will ask questions about labour market outcomes and HE prestige in **other EU countries.**

Labour market relevance					
I believe that obtaining HE would....	Disagree	Rather disagree	Neitehr agree nor disagree	Rather agree	Agree
… provide me with knowledge and skills to succsefully compete in the labour market.	□	□	□	□	□
….help me to qualify for a job that corresponds to my expectations and interests.	□	□	□	□	□
… help me to find a job in relevant industry within 6 months.	□	□	□	□	□
… allow me to get a job that allows me to support myself.	□	□	□	□	□
... benefit my career in a long term.	□	□	□	□	□

HE prestige					
I believe that…	Disagree	Rather disagree	Neitehr agree nor disagree	Rather agree	Agree
… HE diploma obtained in other EU countries is well recognised by Latvian employers.	□	□	□	□	□
….HE diploma obtained in other EU countries is well recognised by foreign employers	□	□	□	□	□
… HE diploma obtained in other EU countries is well recognised by foreign HEIs (e.g. when admitting students for master's degree).	□	□	□	□	□
… Other EU HEIs are highly ranked in international rankings.	□	□	□	□	□

DEMOGRAPHIC INFORMATION

Demographic Info	*Answer*
Age	
Gender	M; F
1st langauage at home	Latvian; Russian
Rural/urban school	Rural; Urban
Mother's highest education attainment	Primary school, secondary school, high school, professional education, bachelor, master , PhD
Father's Highest education attainment	Primary school, secondary school, high school, professional education, bachelor, master , PhD

APPENDIX B: An overview of the results obtained in the focus groups

Table 7: Overview of the feedback provided in the three focus groups

Topic	Survey item	Source	Feedback	Adjustment
HE Access: Information availability	*1. "I know where to find information about the program accreditation."*	**FG_1**	1.1 Majority of students were not sure about the exact meaning of the term "accreditation", it was hard for the students to define and explain the term.	After FG_1, it was agreed that an asterisk sign will be placed next to the term and a short explanation will be given below. FG_2 unanimously supported this approach.
		FG_2	1.2 Students suggested to provide a brief definition for the term.	
		FG_3	1.3 -	
	2. "I know where to find information about career opportunities after completing studies."	**FG_1**	2.1 All students agreed that they are not familiar with potential career path after their studies and such information is not explained at school. However, they mentioned that there are two annual HE exhibitions taking place in the capital city – one for local HEI requiring an entrance fee in Kipsala area, and one for foreign institutions free of charge in Radisson hotel. In such exhibitions some guidance on career path are sometimes provided. Furthermore, career counselling is available in most schools for several years now, but students from this group had not used the services.	The information was noted as it provides relevant insights about the way students select their HE programs. The question was not modified.
		FG_2	2.2 As members of this group were already enrolled in HE institutions, they were more aware of their potential career path after completing the studies. However, they noted that for some study programs such as anthropology it is very difficult to make such estimates, and people often end up working in fields that are not directly related to their studies.	
		FG_3	2.3 -	
	3. *"I know where to find information about the approximate salary in my field of interest."*	**FG_1**	3.1 None of the students knew where to find such information. Some suggested that the best source would be the national websites containing the current job postings (if the salary is disclosed) while others said that they would consult their parents. Students also suggested that salary will likely depend on how good you are and not so much on the field you are working in.	The information was noted as it provides relevant insights about the way students select their HE programs. The question was not modified.
		FG_2	3.2 As members of this group were already enrolled in HE institutions, they said that at the moment they can discuss it with professors or recent graduates, but this information is rarely publicly available.	

		FG3	3.3 -	
	4. "I know where to find information about demanded professions in the labour market in near future (3-5 years)."	FG1	4.1 Majority quickly agreed that it is hard to find such information, and they would not know where to look for it.	The information was noted as it provides relevant insights about the way students select their HE programs. The question was not modified.
		FG2	4.2 Even though members of this group were already enrolled in HE institutions, they said that it is hard to find such information. One of the members said that he is more aware of these opportunities as he comes from STEM field and rather regularly attends conferences related to innovation and market trends.	
		FG3	4.3 -	
HE Access: Financial Assistance	*5."I think that it is easy to qualify for state funded study places or scholarships."*	FG1	5.1 – Roughly half of the students thought that it is doable to qualify for state funded study places in Latvia while others thought that it is not easy. Everyone agreed that this depends on what you intend to study. No one thought that it is easy to obtain scholarships in other EU countries, but some were aware that several Scandinavian countries offer HE programs without charging tuition fees.	The information was noted as it provides relevant insights about the way students select their HE programs. The question was not modified. Roughly 50% of the students entering HEI in Latvia qualify for state-subsidized study places. It is easier if a student is interested in STEM field or is flexible, but harder if one wants to pursue social sciences degree.
		FG2	5.2 – Students said that it differs per HE program. It is easy to qualify for a study place in STEM science since state subsidizes many STEM programs and entry requirements are low. However, a lot of students drop out after the first year due to insufficient background knowledge and lack of interest in STEM sciences.	
		FG3	5.3 – Students in this group come from one of the leading schools. They suggested that whether or not one qualifies for the state funded study places in Latvia very much depends upon a high school one attends as usually students from better high schools obtain better results in the centralised exams, which consequently influences whether one will qualify for the subsidized study places.	
	6."I think that it is easy to obtain a loan to cover stud fees." & "I think it is easy to obtain a loan to cover living expenses."	FG1	6.1 Students said that it might be easy to qualify for a loan, but it is not always a good deal, especially in Latvia. They gave an example of the UK where EU citizens can qualify for a loan that offers good terms and are only required to repay it several years after completing studies. Moreover, payments are proportional to their salaries. However, in Latvia nearly all loans are commercial. In order to qualify for a loan, a prospective student either needs a steady income from a part-time or a full time job or a guarantor - usually one of the parents. The loan needs to be repaid immediately after studies and the terms are fixed.	It was agreed that 2 additional questions will be added inquiring whether the loans provided have favourable conditions/are a "good deal". One question will inquire about loans covering study fees while the other question will inquire about loans covering living expenses.

		FG$_2$	6.2 This group also pointed out that most loans are commercial. Although it is possible to obtain these loans, the terms offered are rarely good, and not everyone can qualify for the loan.	
		FG$_3$	6.3 In terms of financial assistance in other countries, students shared an opinion that this differs per country. In some countries fees are high, but loans are affordable such as the UK, in other countries there are no fees, but it is also difficult to qualify for a loan to cover living expenses.	
	7. "I think that it is easy to combine studies with a part time job".	FG$_1$	7.1 Students disagreed on whether it is easy to combine studies and work.	The information was noted as it provides relevant insights about the way students select their HE programs. The question was not modified.
		FG$_2$	7.2 Students suggested that it is easier to combine studies with part-time job for some programs while for other programs it is very difficult.	
		FG$_3$	7.3 -	
HE Quality: Learning Outcomes	*8. "I think that HEIs enable students to develop good problem-solving skills."*	FG$_1$	8.1 Students said that "problem-solving skills" is not understood the same way in Latvian as it is understood in English. Several students associated this term with solving real life problems such as learning how to vote or obtain a loan.	It was agreed to rephrase this this question in a following manner: *"I think that HEIs enable students to develop good critical thinking skills."*
		FG$_2$	8.2 The group agreed that "problem" solving skills do not easily translate to Latvian and suggested to replace it with critical thinking skills.	
		FG$_3$	8.3 -	
HE Quality: Teaching Methods	9. *"I think that professors use interactive teaching methods in their classrooms."*	FG$_1$	9.1-	Although this feedback was provided by only one person, it was deemed important because the intention of the survey is to test whether methods used lead to good results. Thus, the question was rephrased in a following manner: *"I think that teaching methods used in study process motivate students to actively engage in classroom activity"*
		FG$_2$	9.2-	
		FG$_3$	9.3 One of the students said that she finds many innovative teaching methods to be ineffective. She feels that oftentimes these methods are time-consuming and don't convey the material well.	
HE Quality:	*10. "I think that*	FG$_1$	10.1 Students said that it is a bit hard to assess what should qualify as	It was agreed that interpretation

International ization	*HEIs have sufficient number of international professors and lecturers" & "[...] sufficient number of international students"*		"sufficient".	of these two items depends on every person's individual perception. The items were not modified.
		FG$_2$	10.2 -	
		FG$_3$	10.3 -	
HE Quality: Student Life	*11. Overall. Initially this section was not included in the survey.*	**FG$_1$**	11.1 Students said that this section is important and should be included in the survey.	After the FG$_1$, section on student life was incorporated in the draft research instrument. The members of the other two focus groups agreed that this section should be also included in the final survey.
		FG$_2$	11.2 Students thought that this section is important, and needs to be left in.	
		FG$_3$	11.3 Students said that student life experience is likely to affect their choice.	
	12. "I think that HEIs provide enough social events."	**FG$_1$**	12.1 –	The question was rephrased in a following way: *"I think that HEIs provide enough cultural and entertainment events."*
		FG$_2$	12.2 Students said that "social events" can be misunderstood, because the term is not commonly used in Latvian language. The most common way to refer to social events is by using the phrase "cultural and entertainment events".	
		FG$_3$	12.3 -	
HE Outcomes: HE Reputation	*13. Overall. Initially this section was not included in the survey.*	**FG$_1$**	13.1 Students said that reputation matters, and should be included.	After the FG$_1$, section on HE reputation was incorporated in the draft research instrument. The members of the other two focus groups agreed that this section should be also included in the final survey.
		FG$_2$	13.2 Students said that this section should be included in the survey.	
		FG$_3$	13.3 Several students said that most of their peers prefer to go to better ranked and more well-known HEIs. Some planned to apply for highly ranked institutions abroad. In case their application would be rejected, these students planned to opt for a state subsidized place for a year and then apply for a better ranked HEIs abroad the following year.	
HE Outcomes: Labour market needs	*14. "I think that obtaining HE degree would help me to qualify for a job that corresponds to my*	**FG$_1$**	14.1 Majority of students agreed that higher education is likely to help one to qualify for a job when compared to applicants with no higher education. However, it won't be enough to "land your dream job". You "need to know how to talk, a work experience is a must. You almost always need to start as a volunteer". Alternatively, "you have to have a good network".	The information was noted as it provides relevant insights about the way students select their HE programs. The question was not modified.

	expectations and interests."	FG2	14.2 Several students agreed that usually to qualify for any entry-level job, you either need to be well-connected or have a prior work experience.	
		FG3	14.3 -	
Dependent Variable: Intention to Study in the EU after completing the high school	15. "I intend to study in other EU countries within next 1-2 years."	FG1	15.1 -	The information was noted as it provides relevant insights about the dependent variable, particularly to interpret the regression results with caution.
		FG2	15.2 The group indicated that many students decide upon their final study destination only towards the middle of summer since they want to wait for the results to know if they have obtained state-subsidized study place. Thus, it is hard to give a reasonable estimate about their intentions to study abroad or in Latvia already in spring (when the research was conducted).	
		FG3	15.3 As previously indicated, some students in this group planned to apply for highly ranked institutions abroad. In case their application would be rejected, these students would opt for a state subsidized place for a year and then apply for a better ranked HEIs abroad the following year. This, their estimates for where they intent to study within the first two years might change from the first to second year.	
Miscellaneous	16. Other topics	FG1		
		FG2	16.2 The group suggested to rephrase the answers available on the Likert scale. They proposed to replace "strongly agree" with "agree" and change "agree" to "rather agree". The same applied to negative statements. This was suggested because most surveys in Latvia use milder statements, which are more common also in the daily language.	
		FG3		